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ABSTRACT

Supplementing the first volume of "Research in Outdoor Education: Summaries of Doctoral Studies" published in 1973 (ED 088636), this second volume contains some 121 dissertations, most of which were completed since 1972. All studies in environmental, conservation, and outdoor education were examined; those containing reference to "field experience" or to the provision of educational experiences outside the classroom are included. The criterion definition applied was "The use of materials and resources found outside the classroom to meet educational objectives." Generally, these studies fall into five major categories: (1) proposals for new program developments; (2) organization and administration; (3) historical analysis; (4) teacher education; and (5) evaluation. Listed in alphabetical order by author's name, each summary consists of a brief statement of the problem, the procedure followed, and a resume detailing results and conclusions. Ordering numbers and ordering information are included. An author index precedes the summary section and includes the title of the author's dissertation. (JC)

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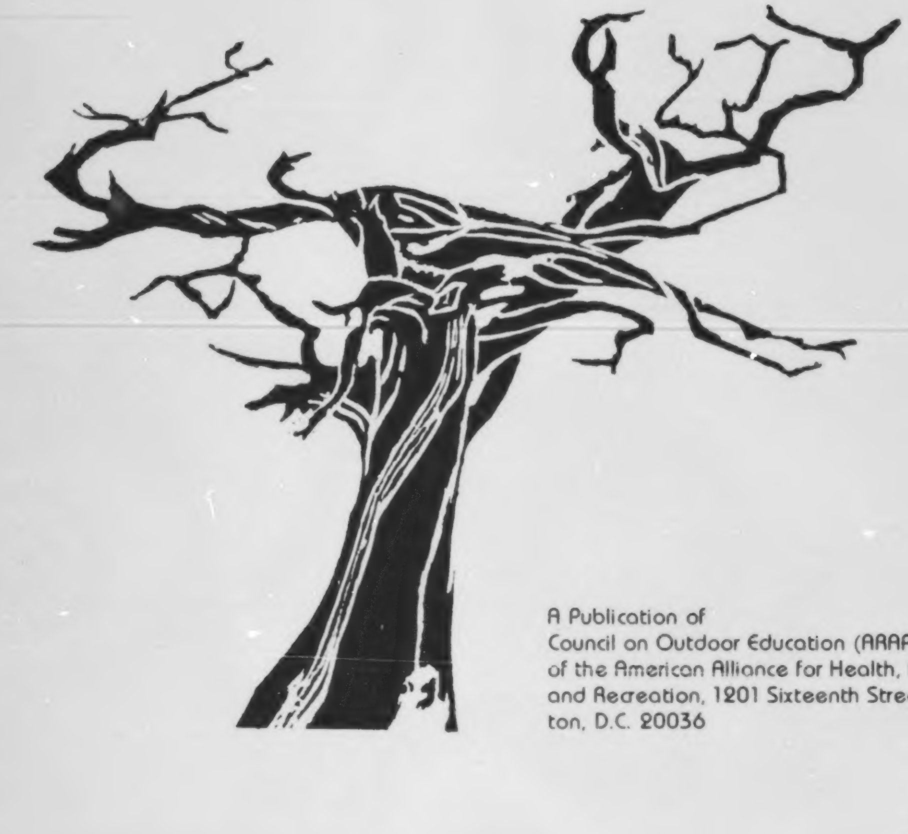
Research in Outdoor Education: Summaries of Doctoral Studies

January, 1978



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RESEARCH IN OUTDOOR EDUCATION:
SUMMARIES OF DOCTORAL STUDIES

Compiled by:

Malcolm Swan
William Stark
Donald Hammerman
Charles Lewis

January, 1978

A Publication of:

Council on Outdoor Education (ARAPC), an Association of the
American Alliance for Health, Physical Education and Recreation,
1201 Sixteenth Street, N.W., Washington, D.C. 20036

FOREWORD

The first volume of Research in Outdoor Education: Summaries of Doctoral Studies was published by AAHPER in 1973. It contained the summaries of 117 doctoral studies that had been completed to that point in time.

This second volume takes up from there. It contains summaries of some 121 dissertations, most of which were completed since 1972.

The compilers used a broadened perspective in the selection of dissertations to include in this volume. All studies in environmental, conservation and outdoor education were examined; and, those containing reference to the "field experience," or to providing educational experiences outside the classroom are included. The criterion definition applied was, "The use of materials and resources found outside the classroom to meet educational objectives."

These studies fall generally into five major categories: (1) proposals for new program developments; (2) organization and administration; (3) historical analysis; (4) teacher education; and (5) evaluation. They are in alphabetical order by author name.

Each summary consists of a brief statement of the problem, the procedure followed, and a resume of results and conclusions. The Order Number should be helpful to the investigator who wishes to obtain a copy of the complete study from University Microfilms.

Many of these summaries were prepared by graduate students in Outdoor Teacher Education at Northern Illinois University who read and examined the xeroxed dissertation. Faculty members (Drs. Malcolm Swan, William Stark, and Donald Hammerman) checked and edited the summaries. Dr. Charles A Lewis, Department of Recreation Education, State University College at Cortland, New York, serves as Director of Publications for the Council on Outdoor Education and Past Chairperson, also contributed to the volume.

These summaries may serve to stimulate further needed research and the growth of quality programs in outdoor education in educational systems.

All listed studies herein that include an order number can be purchased from Xerox University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

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THE EFFECT OF AN OUTDOOR EDUCATION EXPERIENCE ON THE GENERAL AND INTERCULTURAL ANXIETY OF ANGLO AND BLACK SIXTH GRADERS

University Microfilms

By: Daniel Stewart Acuff
University of Southern
California 1976

Purpose

This investigation pursued the question of intercultural anxiety of anglo and black students and what effect a five-day camping experience would have upon this anxiety. Further, the study was an attempt to determine whether black or anglo children changed more and whether any change in anglo children in a camp setting was significantly different from the non-camping anglo student. Also was there a correlation between the amount of general anxiety and the amount of intercultural anxiety in the subjects.

Procedure

A modified version of the Castaneda, McCandless, and Palermo test "Children's Manifest Anxiety Scale" was administered as pre-test and post-test assessments. Three groups, each of 113 students, were utilized in the study with one anglo and one black attending a five-day camp while the other anglo group remained in school. A *t*-test for significant differences and a Pearson Coefficient of Correlation were the statistical treatments used.

Results and Conclusions

Acuff found that black sixth graders had a significantly greater general and intercultural anxiety than did the anglos; the camp program lowered the general and intercultural anxiety of most students and was significantly lower than the non-camp students. The black students diminished significantly more than anglo students in general anxiety and a positive correlation was found between general and intercultural anxiety.

THE EDUCATOR'S GUIDE TO ENVIRONMENTAL EDUCATION

University Microfilms
Order Number: 76-4690

By: Philip James Barnes
University of Miami,
Florida 1975

Purpose

Barnes wanted to stimulate interest in, and knowledge about, environmental education in elementary and secondary educators and provide direct application for the classroom teacher.

Procedure

The monograph is divided into three sections: (1) background and present status of environmental education in the United States, (2) environmental education methodologies and,(3) resources for environmental education. The first section deals with some of the reasons for environmental education, a very brief history of the movement and an update as to its present status.

Barnes says, "The prime aim of environmental education is to create an attitudinal change in students". In the second section he explains some of the techniques which can be used to effect this attitudinal change. The methodologies are divided into five major areas; creating educational awareness, nature study, urban environmental study, problem solving and interdisciplinary study.

The third section is devoted to "Resources for environmental education". It is a partial listing of movies, books, journal articles, environmentally oriented national organizations and scientific equipment companies, which can be used in a classroom.

Results and Conclusions

Two major objectives are fulfilled in this paper; (a) to stimulate interest, and knowledge in environmental education and,(b) provide direct application for the classroom teacher. It provides basic information concerning environmental education to the classroom teacher who is not familiar with this area. This monograph could be used as an outline for a teacher workshop or institute day.

Steven Pentek

E. LAURENCE PALMER: HIS CONTRIBUTIONS TO NATURE, CONSERVATION, AND SCIENCE EDUCATION

University Microfilms
Order Number: 70-19, 386

By: Joseph Bellisario
Pennsylvania State
University 1969

Purpose

Bellisario wished to record the life of E. Laurence Palmer for the purpose of listing, describing, and examining his contributions to nature, conservation, and science education. Effective teacher behavior by Palmer was reported as well.

Procedure

Primary sources used were: copies of E. Laurence Palmer's writings, his annual reports, unpublished autobiographical notes, unpublished chronology, interviews with E. Laurence Palmer, correspondence, and unpublished theses, and periodicals.

Data were verified, when possible, by references to Palmer's publications, testimony of his graduate advisees (through use of questionnaires testimony of contemporaries, his work in professional organizations, and Palmer's honors and awards.

Results and Conclusions

E. Laurence Palmer's major contributions to nature education came through publication of Fieldbook of Natural History, 384 articles for Nature Magazine, and as supervisor and contributor to 132 issues of the Cornell Rural School Leaflet. Conservation benefited from his establishment of the Pack Fellowships at Cornell University with many of his students assuming national leadership roles. Palmer's association with the Boy Scouts of America produced many articles for the Handbook for Boys and Boy's Life. The conservation programs at National Boy Scout Jamborees plus training for the leaders was another contribution. He pioneered the technique of the field trip and pushed for emphasis on the ecological point of view in public education. Palmer's persistent criticism of science educators forced a reevaluation of science education.

Beverly Kruse

THE DEVELOPMENT OF A MODEL TO EVALUATE THE ATTITUDINAL AND BEHAVIORAL GOALS OF K-12 ENVIRONMENTAL EDUCATION

University Microfilms
Order Number: 73-6791

By: Dean Birchard Bennett
University of Michigan
1972

Purpose

This study was concerned with determining whether todays approaches to environmental education develop attitudes, values, and thinking skills. An evaluation model was set up to measure the students' critical thinking and behavior skills with respect to environmental discovery and inquiry; evaluation and identification of environmental improvement opportunities; and the solution and prevention of environmental problems.

Procedure

An evaluation model of behavioral objectives was first designed so evaluation objectives could be designed. Then this model was used in a teaching situation with seventy-five middle-school students enrolled in a two-week environmental education course. Students worked in the classroom, outdoor experiences, problem identification, and problem solving.

Students were given two pre-tests with the same two tests used later as post-tests. One test was on the environmental site from which the students gathered information for use in two-week study programs prior to the post-test.

Results and Conclusions

Both the control and experimental groups were equal at the beginning but the experimental group showed a greater difference in feelings towards nature and of the knowledge and role of man. The no significant differences in the findings of pre-test and post-tests was attributed to the short duration of the experimental program.

MUSEUM ENVIRONMENTS FOR COMMUNICATIONS: A STUDY OF ENVIRONMENTAL PARAMETERS IN THE DESIGN OF MUSEUM EXPERIENCES

University Microfilms
Order Number: 75-12, 302

By: Jose Raul Bernardo
Columbia University
1972

Purpose

Bernardo's dissertation is specifically concerned with factors in the physical environment of a museum which the environment designer can help control, the goal being to achieve a positive response in human behavior within the confines of museum environments. This study was the result of a request from President Johnson (1967) to determine the status of America's Museums.

Procedure

Bernardo analyzed the museum audience and the methods or levels of communication needed to elicit a positive response from the audience. Problems of selective exposure, selective attention and perception were analyzed as were the learning and social aspects of the museum audience.

The study dealt with aspects of both the "immediate" environment of the museum exhibit and the "remote" environment of the exhibit. Problems such as (1) location and accessibility (2) approach (3) attraction and attention (4) suspense and (5) surprise of an exhibit were discussed. A design theory was suggested on the proper usuage of space and time in the museum experience. The physical environment, as perceived and interpreted by each of the many sensor mechanisms of the human body, were studied in detail; and recommendations were made to reduce the possible interferences or communicational "noises".

Results and Conclusions

The museum is set up to educate through entertainment and to provide a positive museum experience for the audience (observer). The museum design, if properly modified by particular circumstances, can help an observer achieve a positive museum experience. The author developed a design theory for museum exhibits, relating the communicational value of proper museum experiences to the environmental parameters of the museum exhibit.

Kathleen M. Luczynski

ANALYSIS OF URBAN AESTHETICS COMPONENTS OF EXISTING ENVIRONMENTAL EDUCATION CURRICULA

University Microfilms
Order Number: 73-18797

By: Richard J. Blinn
University of Southern
California 1973

Purpose

At the present time there is an emergence of urban aesthetic programs in the curricula of the elementary and secondary schools, based upon national priorities to understand and improve the urban environment of American cities. The author's overall purpose was to investigate what has been researched and written on the topic of urban aesthetics that applies to education, to establish a consensus of ideas of urban specialists to be used as evaluation criteria of existing curricula, and to make a critical analysis of those curricula with recommendation for their possible development.

Procedure

The data were collected mainly from periodical literature to establish the current status of emerging programs. The author selected theories from recognized experts in urban theory, and reviewed those theories. From these theories the present criteria are based. A final analysis, including a concept analysis, was then made of existing environmental programs. Analyses were based upon such philosophic areas of inquiry as what a society is and ought to be, and what the individual within that society is and ought to be, and the way to get him there.

Results and Conclusions

Progress is being made in the area of urban environmental education although the ideal is far from what now exists. The problems of American cities will not disappear in the near future because the public in general is largely ignorant of aesthetics and urban design. Criteria developed by urban experts are a necessity for guidance of urban environmental programs. Curriculum problems develop because aesthetic programs are often complex and uncharted, and require sustained time and effort. The development of an aesthetic curriculum with substance and power will require much work and effort before it can produce the range of operational curricula envisioned by present proponents. Types of recommendations presented were in-service teacher training programs, development of college courses in the area of urban study, initiation of programs by state education departments, and continued research in the area of urban aesthetics.

Joyce Barajas

THE SELECTION OF STATE SCHOOL LANDS FOR DEVELOPMENT INTO OUTDOOR TEACHING LABORATORIES

University Microfilms
Order Number: 73-25, 175

By: Daniel Garth Block
University of Montana
1973

Purpose

The purpose of this study was to develop a procedure for evaluating selected state school lands and to explore procedures necessary to acquire their use for outdoor teaching laboratories in addition to their present uses.

Procedure

Block used field examination as the method of evaluating state school lands to be selected for environmental education. This involved selection of study sites, the development of an evaluation form and on-site evaluation of each selected area. Five educational centers were selected in western Montana. Thirty-eight tracts of land were chosen for the field study while on-site evaluations were completed on twenty-eight tracts.

Results and Conclusions

Block revealed that there are three legal steps required for the acquisition of state school lands which involve three approaches: lease sharing with the current lessee, 1947 relating to multiple use; application for an easement for educational purposes, and withdrawal from leasing for the purpose of education.

The field evaluation of the five teaching centers revealed that all districts had nearby land available and had study areas which were excellent for use in environmental education. The majority of school lands are under current grazing lease, but several possibilities exist for the use of the land for educational purposes. It can be concluded that there are thousands of acres in Montana that are available for environmental educational purposes.

Michael Welch

CONSERVATION OF NATURAL RESOURCES: A STUDY OF GOVERNMENTAL AND EDUCATIONAL ACTIVITY IN SANTA CLARA, CALIFORNIA, 1950 - 1964

University Microfilms
Order Number : 66-2509

By: Dick Harry Bower
Stanford University
1965

Purpose

The purpose of this study was to identify and analyze the range and extent of activities in conservation of natural resources of county, governmental and educational agencies in Santa Clara County, California during the period 1950-1964.

Procedure

This study was carried out within the framework of the historical method as found in The Methodology of Educational Research by Carter Good. The study involved: (1) collection of data, (2) criticism of the data collected, and (3) the presentation of the facts, involving problems of organization, composition, exposition, and interpretation. In dealing with the collection of data, only written documents were considered as primary sources. Individuals within both the governmental and educational sectors who were interviewed made up the secondary sources. The information was then examined in search of specific mention or identification of either natural resources or conservation.

Results and Conclusions

Out of 49 school districts in Santa Clara County, written policy statements concerning conservation were found in only one district. Very little evidence was found of budgeted funds for the purpose of conservation activities. Also only two elementary districts had independent programs of conservation education. In conclusion Bower states, "If indeed, education is the primary means by which we will find a solution to the dilemma of resource management, we must develop positive programs, more in the minds of men, than in their institutions".

Steven Pentek

THE EFFECTIVENESS OF FIELD TRIPS COMPARED TO MEDIA IN TEACHING SELECTED ENVIRONMENTAL CONCEPTS

University Microfilms
Order Number: 73-3860

By: Eugene Ralph Brady,
Iowa State University
1972

Purpose

A comparison was made of the effectiveness of field trips to that of media in teaching selected environmental concepts. The study was concerned with their effects upon student achievement and their change in attitude towards the environment.

Procedure

Students were randomly assigned to either the field trip group or the media group with the media group designated as the control group. The investigator and his fellow instructors were involved in teaching both groups using their regular biology text plus activities they developed for use in the field or laboratory. A modular schedule was devised so students would be involved with large group instruction, small group instruction, laboratory instruction or field trip experience, and independent study. The study contained three units and achievement tests were used to gather data.

Results and Conclusions

It was found that both media and field trips were effective methods for teaching environmental concepts. No significant difference was found in achievement by boys or girls. Both methods resulted in significant attitude changes towards the environment. Attitudes became more positive towards the environment and especially the biological environment.

A PROCEDURAL MODEL FOR DEVELOPING ENVIRONMENTAL EDUCATION PROGRAMS FOR TEACHERS OF YOUNG CHILDREN

University Microfilms
Order Number: 73-31,859

By: Richard Alpha III Brice
University of Georgia
1973

Purpose

To design and implement a procedural model for developing environmental education programs for teachers of the very young was the object of this study. Additional considerations : the model must be consistent with accepted ecological principles; consistent with the developmental level of the young child; must use materials readily available to teachers with a limited budget; and must make effective use of multimedia presentations.

Procedure

Interviews were held with five members of an interdisciplinary panel to gather information for the model. Kindergarten children and their teachers were also a source of information as were twenty-eight teachers enrolled in an in-service workshop. Additional data were obtained from a class in early childhood education.

Results and Conclusions

The Response Form and Summative Evaluation Forms were appropriate devices for gathering information on curriculum development because of the specific membership criteria used in selecting the panel members and course enrollees. Children responses were appropriately obtained through utilization of kindergarten classes. By developing specific units within the undergraduate classes and in-service workshops, educators became more sensitive to the vital nature of environmental education for young children.

THE FREQUENCY AND SIGNIFICANCE OF ENVIRONMENTAL CONCEPTS AS FOUND IN LITERATURE FOR PRIMARY GRADE CHILDREN

University Microfilms

By: Arthur Jeff Brigham
University of Wyoming
1971

Purpose

This study dealt with questions like these: (1) What concepts for instruction to primary grade pupils are being recommended in available state environmental education curriculum guides? (2) With what frequency have these selected concepts appeared in children's literature - picture books? (3) To what extent can picture books contribute to teaching environmental concepts, and (4) What impact can children's literature have on environmental education in the primary grades?

Procedure

Brigham identified environmental concepts suggested for primary grade instruction in fifteen available state curriculum guides. A frequency count of the concepts in children's literature was made. Concepts were identified as to whether or not they received major emphasis in the literature, as well as additional references in which each concept appeared. Forty concepts were thus identified. The 250 picture books used in this study were annotated, and specific concepts (among the forty) identified.

Results and Conclusions

The frequency with which each concept appeared in the literature, and the frequency that a concept received major emphasis was summarized. Brigham recommends seven concepts that, in his judgement, warrant greater attention in children's picture books.

AN ANALYSIS OF THE ATTITUDES OF RESIDENT ADMINISTRATORS REGARDING CRITICAL PROBLEMS IN RESIDENT CAMPING

University Microfilms
Order Number: 71-18, 144

By: James Lloyd Bristor
Indiana University
1971

Purpose

Bristor wished to investigate, analyze, and evaluate specific attitudes of resident camp administrators concerning significant problems that they faced.

Procedure

Camping professionals were consulted to establish a list of critical problems in resident camping. A modified version of the Likert method was used to measure attitudes. A pilot group of resident camp administrators critiqued a mock-up of the survey instrument. The surveyed administrators represented a 20 per cent stratified random sample taken from the membership of the American Camping Association. Each response that they provided was assigned a weighted value to establish a mean score that would indicate the degree of agreement or disagreement toward each attitude statement.

The suggested solutions for the critical problems were obtained from the questionaire that was returned by the random sample of administrators. These solutions were categorized under the following areas of concern: (1) Resident Camp Program, (2) Resident Camp Personnel, (3) Public Interpretation of Camping, (4) Use and Availability of the Natural Environment, and (5) National Organization.

Results and Conclusions

Resident camp administrators expressed the concern that only minor progress is being made toward solving many critical problems. The consensus was that the American Camping Association should make an effort to solve these common problems. The study also demonstrated that the administrator's background influenced his or her attitudes toward these specific problems.

Bristor also concluded that camping facilities should be made available to provide a camping experience for economically disadvantaged youth.

Michael J. Fager

THE DEVELOPMENT OF A THEORETICAL MODEL BASED ON THE SIX REALMS OF MEANING FOR THE PURPOSE OF DEVELOPING AN INTERDISCIPLINARY ENVIRONMENTAL STUDIES PROGRAM

University Microfilms
Order Number: 72-3916

By: William Louis Bruckhorst,
University of Mississippi
1971

Purpose

A major assertation by Bruckhorst is that environmental education is not a new subject but rather a new approach to learning in that it is interdisciplinary and includes all teaching levels. His study was to construct a theoretical model that focused upon the six realms of meaning and which may aid in overcoming such problems as scope, nature, and synthesis of information that confronts curriculum development in environmental studies.

Procedure

By using the curriculum theory of Philip H. Phenix, Realms of Meaning, the author set out to structure a model of interdisciplinary instruction in environmental education. The six realms include symbolics, empirics, esthetics, synnoetics, ethics, and synoptics.

Results and Conclusions

The author expanded the six realms of meaning in a three-dimensional cube.Using three continuums: hierarchy of organization, humanity characteristics, and geologic time;he found changes in attitude, values, and beliefs. Thus there was an overlap of realms of meaning sufficient to produce a truly interdisciplinary environmental curriculum. He held that mans' feelings must be extended from the individual or society to include the biotic and physical world too. He further concluded that man must better understand the mechanism of attitude and value change as they are necessary for interdisciplinary studies.

TEACHER PERCEPTIONS OF ENVIRONMENTAL EDUCATION CONCEPTS IN PROGRAMS OF BIOLOGICAL SCIENCE INSTRUCTION IN SECONDARY SCHOOLS

University Microfilms
Order Number: 77-1040

By: William Jennings Calcote
Auburn University
1976

Purpose

Calcote wanted: (1) to analyze existing biological science instruction in relation to specific environmental education concepts, (2) to determine the background of biological science teachers in terms of preparation for teaching environmental education concepts, and (3) to make recommendations for the improvement of environmental education through biological sciences.

Procedure

Calcote's study involved sixty-four biological teachers from twenty-eight high schools in six south eastern states. Data were collected through a review of professional literature and the administration of two instruments. The Environmental Education Concept Opinionnaire determined the teacher perceptions of fifty-four selected environmental education concepts in four categories. The Teacher Questionnaire was used to collect data pertaining to, (1) the status of environmental education in the high school curricula,and (2) pre-service and in-service preparation of biology teachers for teaching environmental education concepts.

Results and Conclusions

1. Related literature: The current trend is to place strong emphasis on the interdisciplinary aspects of environmental education. Environmental ethics and scientific literacy should be cultivated through the curriculum. Decision making and value clarification are two methods by which environmental education can be approached.

2. Teacher questionnaire: Calcote found only one school in twenty-four offered an environmental education course in the curriculum. All sixty-four teachers had some background in environmental education with in-service training considered the most valuable.

3. Concept opinionnaire: Ninety-five per cent of the teachers were aware of the biophysical concepts while eighty-five per cent were aware of the sociocultural concepts. The teachers emphasized the biophysical concepts more than the other three with sociocultural concepts lowest in emphasis.

There was a high degree of awareness of the concepts and a desire to include environmental education in the teacher's courses. The teachers exhibited the capability and interest in environmental education. Teacher pre-service should focus in on interdisciplinary approaches.

John Black

ANALYSIS OF PREFERENCES FOR OUTDOOR RECREATION LANDSCAPES

University Microfilms
Order Number: 73-9896

By: Ernest Carls
University of Illinois
1972

Purpose

The study is derived from the general question: Is landscape preference influenced by the presence and magnitude of people and man-induced conditions as elements of the landscape scene? Carls deals with one aspect of the interaction between outdoor recreation users and resources. The investigation was designed to study public preferences for various landscape scenes and the possible effects these may have on outdoor recreation behavior.

Procedure

The sample for this study consisted of 345 adults selected at random from nine Illinois outdoor recreation areas and three Illinois standard metropolitan statistical areas. Of the total 270 respondents were campground users and 75 were selected from the general population.

In the study, landscapes were depicted by 100 8x10 inch, black and white photographs taken throughout the United States when trees were in foliage. Landscapes included forests, mountains, meadows, water, and various combinations of each.

Collection of study data was accomplished in the field through personal interviews. Landscape preference scores were based on rankings. Analyses used in this study were multiple correlation and a two-way ANOVA (Analysis of Variance) design with nine possible combinations of the two variables.

Results and Conclusions

It was found in the ANOVA that statistically significant differences exist between the levels of two main effects. Carls concludes that the presence of greater numbers of people and higher levels of development tend to reduce landscape preference.

James R. Koinis

A STUDY OF THE INFLUENCE OF A RESIDENT OUTDOOR EDUCATION EXPERIENCE ON INTERMEDIATE LEVEL CHILDREN'S PERCEPTION OF PEERS AND PERCEPTIONS OF THE OUT-OF-DOORS

University Microfilms
Order Number: 73-19,791

By: Marcia K. Carlson
Syracuse University
1972

Purpose

The investigator sought to determine the effect a resident outdoor education experience has on intermediate level children's perceptions of peers and their perceptions of the out-of-doors. Three questions were addressed:

1. Would the participants view their peers differently after playing, working, and sharing a variety of experiences in a sustained twenty-four hour a day outdoor education environment?
2. Would the participants become more sensitive to, more perceptive about, and discriminate among more facets of the out-of-doors?
3. Would the participants develop different attitudes about the out-of-doors?

Procedure

Three tests were given:

A) The Guess Who Inventory
B) The Selected Outdoor Pictures
C) The Concept Factor Scale

These tests were given to an experimental group of 4-6 graders and to two control groups of the same age over a three-week period - one test each week. The fourth week the experimental group attended a five-day resident outdoor education experience. The week following, the testing was repeated in the same sequence.

Results and Conclusions

The findings were contrary to expectations for these reasons:

1. Five days in a resident outdoor experience may have been too brief a time for differences to develop. Since the group tested conducted their outdoor event during the winter, out-of-door activities may have been reduced so as not to have a marked contrast with a classroom environment.
2. The testing (data collecting) instruments may not have been adequate to assess the effects of a mid-winter experience.
3. The open-classroom program of the Cortland College Campus Lab School may have provided an enriched environment that reduced the effects of the outdoor experience.
4. Some unknown variable may have developed in the classroom of the control groups during the experimental period to have affected the results.

David Kruse

THE RELATIONSHIP BETWEEN CHILDREN'S DRAWINGS AND SENSITIVITY TO ENVIRONMENTAL SOUNDS

University Microfilms
Order Number: 59-00752

By: Charles Bruce Carter
Pennsylvania State University
1958

Purpose

Carter wished to study the relationship of elementary school children's artistic achievements and their sensitivity to environmental sounds.

Procedure

Carter conducted a preliminary study with third-grade students to determine if a relationship existed. Sixty students were randomly selected and studied over a three month period. Students were examined with an audiometer to insure accuracy of a sound test. Three drawings were collected from each child and judged by a panel according to Heilman's developmental criteria and the scores for each work were then averaged. Carter developed a sound test of ten items of actual environmental sounds. A significant relationship ($r=.70$) was found between art work scores and child's sound test, indicating that third grade children who were more capable of identifying their environmental sounds would show more growth in art.

Carter's main study examined if the relationship existed in other grades or if some other pattern existed. For the study in grades first through fifth the sound test was extended to twenty familiar meaningful environmental sounds. One hundred students from a rural environment were studied over a three month period. The art work was judged by a panel of six people on a five-point scale with the scores then being averaged for each work. The materials for the art work were colored crayons and 9 x 12 manila paper. The art work was judged within grade levels and had a common motivation.

Results and Conslusions

There was a significant developmental relationship between auditory sensitivity to environmental sounds and art achievement; reaching a high point at the third and fourth grade levels. The difference between any grade, one through five, is not significant in sensitivity to environmental sounds.

Roger Moellering

CHANGES IN ATTITUDE TOWARD OUTDOOR EDUCATION BY TEACHERS AND ADMINISTRATORS AFTER PARTICIPATION IN THE COOPERATIVE OUTDOOR EDUCATION PROJECT, TITLE III, E.S.E.A.

University Microfilms
Order Number: 70-7267

By: Craig C. Chase,
Southern Illinois University
1969

Purpose

The purpose of this study, conducted in Williamson County, Illinois, was to identify changes in attitude of elementary teachers and school administrators toward the usefulness of outdoor education in achieving academic goals. A secondary purpose was to develop an evaluation instrument for determining the success of an outdoor education program.

Procedure

Individuals examined in this study were asked to complete the Outdoor Education Emphasis form to be used as an aid in categorizing score The scores of the population were divided and examined in terms of official role of respondents, academic training, number of years of educational experience, school, individual district, and sex. The Outdoor Education Inventory was given at the start of the 1967-68 school year to determine teacher and administrator knowledge and attitudes toward outdoor education. Eighty seven per cent of the selected population completed a post-test at the end of the school year. A pre- and post-test comparison of scores was made.

Results and Conclusions

An examination of both teacher and administrator scores showed these population categories to have a significant and positive change in their attitudes toward outdoor education. An examination of all populations grouped according to role, education, experience, and sex showed a significant and positive change in attitude toward outdoor education. Three of the five school district administrator staffs showed a significant change in attitude; all district staffs evidenced a positive attitude change. Eighteen of the twenty-three school teaching staffs had a significant change in attitude; all teaching staffs evidenced a positive attitude change. It was further concluded by the author that the instrument developed and employed for this study can be used to evaluate the effectiveness of an outdoor education program among in-service teachers and their school administrators. The major strength of this study is the Outdoor Education Inventory. It is a very thorough, concise, carefully worded questionnaire which more than adequately fulfills its function in this report.

Deborah Muskat

AN ANALYSIS OF ENVIRONMENTAL EDUCATION PROGRAMS AND PROJECT CURRICULA IN SELECTED PUBLIC ELEMENTARY AND SECONDARY SCHOOLS IN THE UNITED STATES

University Microfilms
Order Number: 76-1929

By: Ronald Barry Childress
University of Tennessee
1975

Purpose

By sampling public elementary and secondary environmental education programs throughout the United States this study was an attempt to analyze curricula characteristics. Grade level of participation, program justification and objectives, processes used in content selection, curriculum organization, and instructional materials all were investigated. Additional determinations were made on socio-cultural background of students, curricular organizational patterns, and funding.

Procedure

A direct mail questionnaire to public school environmental education program directors and coordinators served as the information source. Some sixty-four percent of the questionnaires were useable in the tabulation of information.

Results and Conclusions

Grade level involvements were generally greater in grades five, six, ten, eleven, and twelve with kindergarten involved the least. Major influences on programs were educational, ecological, and conservation considerations although other influences were identified as also exerting influence. Programs were usually focused upon acquiring knowledge or skill and the development of appreciation and less on the solving of environmental problems. Curriculum content was largely due to the participating teachers with interest of students, personal and social needs of students, and other teachers input of lesser importance. Earth and biological sciences were the two subjects most often taught even though programs were called interdisciplinary. No dominate staff organizational pattern was found but the greatest constraint to all programs was the inadequate funding at all levels.

THE DEVELOPMENT AND EVALUATION OF A SELF INSTRUCTIONAL LEARNING GUIDE FOR USE AT AN OUTDOOR EDUCATIONAL AREA

University Microfilms
Order Number: 75-3728

By: Kathryn Grace Ciesla
Ball State University
1974

Purpose

This study involved the development and evaluation of an effective self-instructional learning guide which would assist the student in a study of the environment in a natural setting, and help familiarize future teachers with a method of outdoor environmental education.

Procedure

Ciesla constructed a learning guide of the Wildlife Preserve at Ball State University to be administered to Ball State University students. The students performed the activities described in the guide at the Wildlife Preserve. Five experimental and two control sections were pre and post tested to evaluate cognitive gain. They also responded to a perceptual questionnaire. The questionnaire was devised by Ciesla and the content was obtained from the learning guide. An additional four sections of students also used the guide but responded only to the questionnaire.

The experimental sections were administered the pretest by Ciesla in their regular classroom and went as a group to the Wildlife Preserve. They walked along the marked trail with individual copies of the learning guide. The group performed the activities described in the guide for each station, completed the questionnaire, and returned to the University. They took the post test one week later under the same conditions as the pretest. The control sections were administered only the pre and post tests at one week intervals under the same conditions as the experimental group.

Results and Conclusions

The pre and post test results indicate a mean gain of 2.7 points for experimental students and a mean gain of .69 for students in the control sections.

The results from the questionnaire show overwhelmingly agreement that the trip was worthwhile and that new facts and concepts had been learned. The study also indicates that an effective self-instructional learning guide to an outdoor education area can be developed for use by university students.

Michael Welch

A TWO WEEK RESIDENT CAMP OFFERING THE PRIMARY OBJECTIVE OF PREDETERMINED ATTITUDE CHANGE FOR EARLY ADOLESCENTS

University Microfilms
Order Number: 73-27790

By: **Ernest M. Coons**
University of New Mexico
1973

Purpose

This was a determination of change in attitude of a significant amount in a twelve day camp program when a positive attitude change was the main objective as compared to another group that participated in a regular camp program.

Procedure

Two groups of children 10-13 years of age were randomly placed into an experimental and a control group. The control group participated in a regular twelve day camp program. The experimental group participated in a similar twelve day program but one that was designed to develop more positive self-concepts and more positive attitudes towards school and education in general. Groups were structured so that a majority were either culturally, educationally, socially, or economically disadvantaged. Subjective evaluation by camp staff and a pre-test and post-test were used to help identify changes in student behavior. One test measures self-concepts while the other determined group social structure.

Results and Conclusions

More positive attitudes were achieved by the children in the experimental group than in the control group. Evaluations made by guidance personnel indicated that both groups benefited from the camp program but the experimental group seemed to do so to a greater extent. Therefore, more positive attitude towards self and others can be developed in an outdoor education program designed to emphasize attitudes.

THE EFFECTS OF OUTWARD BOUND TRAINING ON INDIVIDUALS' PROPENSITY FOR RISK TAKING

University Microfilms
Order Number: 76-15, 032

By: Mason Rodney Davis
University of Oregon
1974

Purpose

Davis wished to know if an Outward Bound course resulted in changes in the risk-taking inclination of the students.

Procedure

Davis' experiment was conducted with one hundred and sixty members in a control group and one hundred sixty members in an experimental group. The control group consisted of non-students randomly drawn from the population that requested information about the Northwest Outward Bound courses in the 1975 season. The experimental group was randomly selected from the students participating in the same Outward Bound Program for the summer of 1975. Each group consisted of eighty males and eighty females.

Davis used the ten items Kogan and Wallach "Choice Dilemmas Questionnaire." These questionnaires were administered to one-half the control and experimental groups as a pretest. They were sent as a post test to all members of both groups (320 in all) in the fall of 1975. The Questionnaire consists of various risk-taking situations ranging from gambling to marriages and from politics to business.

Results and Conclusions

Davis concluded that the Northwest Outward Bound standard course did not significantly change students' inclination for risk-taking. The sex of the subjects was not related to the outcome.

The test was designed in 1960 for administration to men. The women taking it felt that many test items were not applicable to them, and the test, therefore, was not truly an accurate measurement for all members of the groups being studied.

Jeanne Kuhn

ENVIRONMENTAL EDUCATION PROGRAMS OF SELECTED COOPERATIVE EXTENSION SERVICE PERSONNEL

University Microfilms
Order Number: 74-13057

By: Tom Lloyd Davis
Texas A & M University
1973

Purpose

The general purpose of the study was to investigate, describe and analyze the organization of environmental education programs of Cooperative Extension Service (CES) Specialists in Recreation and Community Resource Development (CRD).

Procedure

The first section of the study was devoted to a review of the progressive depth of environmental concern in the nation and in the CES. The inception and structure of the CES and the development of CES recreation and CRD programs are also included.

The research was designed as a three level study to include all personnel with direct responsibility for CES recreation and CRD programs. Questionnaires were used to determine the needs of CES and CRD personnel. A second questionnaire was then constructed using many duplicate questions re-worded to better reflect the viewpoint of administrative positions. A third questionnaire was also sent. A 60 day return period was established for inclusion of returns in the data tabulation and analysis.

Results and Conclusions

The need for cooperative extension service (CES) environmental education programs was perceived by a majority of the CES administration and all of the Extension Services - United States Department of Agriculture personnel. According to the responses, completion of the questionnaire had increased the perspective and awareness toward potential CES programs in environmental education of 63.5% of the specialists and 41.7% of the administrators. From the study came a number of recommendations to facilitate and improve CES environmental education at the county and area levels.

Steven Pentek

A COMPARATIVE STUDY OF SCIENCE ACADEMIC ACHIEVEMENT OF SENIOR HIGH SCHOOL PARTICIPANTS AND NON-PARTICIPANTS IN AN OUTDOOR EDUCATION CENTER - ST. MARTIN PARISH

University Microfilms
Order Number: 73-30,233

By: Jefferson J. DeBlanc
McNeese State University
1973

Purpose

Does participation of senior high school students in an outdoor education program significantly change their academic achievement in science? DeBlanc sought answers to this question.

Procedure

A total of 479 students from both St. Martinville Senior High and Celcilia Senior High school participated in the study. Only the students from St. Martinville Senior High school participated in a series of mini-courses at the outdoor education center while the Celcilia High school students remained in the "typical classroom" environment. The Metropolitan Achievement Test: Form AM was used as both a pre-test and a post-test.

Results and Conclusions

The findings seemed to indicate that the experimental group involved in the outdoor education center gained significantly more in science achievement than did the classroom group. Whites in the outdoor study group showed more improvement in science academic gains than did non-whites. There was no significant differences in academic gain in Title I and non-Title I students. There was no significant difference between the upper one third and lower one third I.Q. ranges in their science academic achievement. But lower ability whites showed a larger gain in achievement than high ability whites while higher ability non-whites showed a greater gain in achievement than the lower ability non-whites.

A STUDY OF FACTORS ASSOCIATED WITH OUTDOOR RECREATIONAL PARTICIPATION IN SOUTH DAKOTA

University Microfilms
Order Number: 76-13781

By: James Warwick DeLong
South Dakota State
University 1975

Purpose

The purpose of this study was to learn what social and attitudinal factors are associated with participation in selected outdoor recreational activities in South Dakota.

Procedure

A sample of 474 persons, or .025 percent of the total population of households in South Dakota, was randomly selected by computer. A pretested schedule with fixed-option questions was used. The interview schedule was constructed so as to obtain information concerning attitudes towards selected aspects of hunting, hunters, game management and outdoor recreation. Statements were used in an interview schedule to measure attitudes in the mentioned areas. The interviewer read the stimulus statements and the interviewee responded with one of seven choices from a card provided by the interviewer. The cards contained a seven-point scale, commonly referred to as a Lickert Scale.

The data were analyzed to: (1) Provide a descriptive analysis of the characteristics of participants in selected outdoor recreational activities; (2) Determine what independent variables are significantly associated with selected outdoor recreational activities; (3) Determine the extent to which the selected past experience variables, current social status variables and attitudinal variables explain the variation in outdoor recreation. The frequencies and percentages of participation were calculated from the data for each type of outdoor recreational participation.

Results and Conclusions

The study indicates that hunting, fishing, and lakeside camping or picnicking are popular outdoor leisure activities among South Dakotans, but no consistent pattern is evident regarding the attributes of individuals most likely to participate in these or other activities that were studied. The study also indicates that most residents of South Dakota do not maximise participation in outdoor recreational activities.

Steven Pentek

SOCIAL INTERACTION OF PHYSICALLY HANDICAPPED CHILDREN IN INTEGRATED AND SEGREGATED SUMMER CAMPS

University Microfilms
Order Number: 73-15,436

By: Susan Schmidt Dibner, Ph.D.
Brandeis University
1973

Purpose

Dibner's study focused on the interactive process between handicapped children who are residents in overnight summer camps with each other and with normal youngsters. Particular attention was paid to the effects of social structure on social interaction and relationships.

Procedure

Dibner's study was conducted at a segregated boys camp (Camp Cherokee) and girls camp (Camp Hiawatha) for the handicapped as well as an integrated camp (Camp Woodland) for both handicapped and normal children in two periods of 1969 and 1970. There were varying dimensions of handicaps involved including such things as sensory, verbal, motor, hidden, acquired at birth and different degrees of severity. In the integrated camps, five handicapped children were integrated per session. For each of the handicapped studied there were two normal children studied who were chosen according to similar race, age, and socioeconomic background. There was a control group selected as well as another group to represent a cross section of the students. Data were collected on normal children, handicapped children and staff using: field observations, including informal conversations; participant observations; formal and informal interviewing of campers and staff; group discussions with camp personnel; and examination of records on campers - camp records and Easter Seal Society records.

Results and Conclusions

In the integrated group the stress on being normal resulted in denial-avoidance of differentness. People were more defensive and concealing about themselves. Emphasis on accomplishments resulted in a greater motivation to produce, compete, and win. Competing and winning became a basis for acceptance by peers. Resulting interpersonal relationships were less emotional; the individuals were more independent and they may have been more productive.

In the segregated group, there was more open acceptance of differentness and less defensiveness about physical appearance and style of performance. Their relationships were more honest, and they dealt more directly with problems relating to physical limitations. The groups were more interested in individuals as personal-social beings rather than as performers or producers. However, the motivation to be accepted as a person may have reduced the productivity of individuals. The interpersonal relationships were closer and more emotional. There was more helping and depending on others.

A CRITICAL ANALYSIS OF CURRENT ENVIRONMENTAL EDUCATION PROGRAMS IN FORTY SELECTED MIDDLE AND JUNIOR HIGH SCHOOLS OF THE CONNECTICUT RIVER VALLEY

University Microfilms
Order Number: 76-14289

By: Sidney I. DuPont
University of Connecticut
1975

Purpose

This was a critical analysis of recent past and present environmental education programs in certain middle or junior high schools. A secondary purpose was to obtain data concerning the relationships between environmental leaders and the teachers on the importance of certain concepts and topic areas of environmental education and its status in the schools.

Procedure

A questionnaire was developed from the Minnesota and Massachusetts environmental survey models and administered to one hundred twenty-five environmental leaders and the same number of teachers. A second questionnaire determining beliefs and practice towards the environment was also administered. Data were analyzed using the Chi-Square test for significance.

Results and Conclusions

A significant difference between the beliefs of both groups and the actual practices in concepts and topic areas. No difference was found between the two groups of what concepts and topics were important to teach. Actual environmental education programs in the Connecticut River Valley were falling far short of teaching concepts and topic areas that both teachers and environmental leaders consider important. A need exists for training in environmental education as does an exemplary demonstration program. Non-school agencies should cooperate more in the development of the schools' physical facilities to enhance environmental education.

ASSESSING THE ENVIRONMENTAL ATTITUDES AND BEHAVIORS OF A SEVENTH GRADE SCHOOL POPULATION

University Microfilms
Order Number: 76-15167

By: Nancy Dyar
University of California
1975

Purpose

There was a four-fold purpose to this investigation : the development of a valid testing measure to discover attitudes and actions of seventh grade students concerning the environment, environmental problems, and the solution to these problems; the determination of behaviors and attitudes of children in relation to their sex, intelligence, residence, and socio-economic status; the evaluation of an attitudinal and action measuring device for generating student involvement in environmental topics; and the revision of environmental education curricula were the major purposes of the study.

Procedure

Three studies involving one hundred students from the seventh grade represented the population for this study. Interviews with seventh grade students along with information from environmental science experts were statistically analyzed. The student population represented rural, suburban, and urban residence; high, medium, and low scholastic ability; middle and low socio-economic status; and both boys and girls.

Results and Conclusions

Once access and exposure to a variety of environments has taken place, then awareness and appreciation will develop. The greater the exposure to environments, the more access to the environments, the more confident and knowledgeable the student is of his ability to effect change in the environment, then the more environmentally concerned and active the student will be. The study indicates that urban students lack education in environmental concerns, yet exposure to environmental study increases ones' awareness, appreciation, and ability to effect environmental change.

THE DEVELOPMENT AND VALIDATION OF AN ENVIRONMENTAL ATTITUDE MEASURE WITH PREDICTIVE VALIDITY

University Microfilms
Order Number: 74-17,039

By: Thomas Eastman
University of Maryland
1973

Purpose

The purpose of this study was to determine whether overt environmental behavior could be predicted from attitude measurement. Then if it is predictable could such measures be applied to evaluate the success of affective education.

Procedure

Eastman developed a three-way factorial design and conducted his study in eight phases: (1) selection of the sample, (2) construction of the attitude instrument, (3) pilot testing, (4) instrument revision, (5) development of teaching materials, (6) validation of the revision, (7) administration of the treatment, (8) interpretation of the findings. This study was conducted in the state of Massachusetts and centered around overt littering behavior. Eleven hundred students in thirty-nine classrooms made up the experimental group. Student "littering" was observed and recorded for a two-week period. Then a pretest was administered to them and a control group. Subsequently the experimental group was taught a unit on litter pollution and it and the control students were posttested.

Results and Conclusions

Eastman found four important results from his study and research. 1) The attitude of littering is relatively stable and uniform among children in the sixth grade, the instruction not having an effect. 2) The prediction of overt littering behavior is attainable with attitude measures applying the Semantic Differential technique. 3) The SD technique and measurement of overt littering behavior are reliable and valid measures for evaluating litter pollution education. 4) Demographic populations are not different enough in Massachusetts to warrant different methods of litter pollution education.

James Burns

THE ESTABLISHMENT OF GUIDES FOR THE DEVELOPMENT OF MULTI-USE CAMP SITES AND FACILITIES

University Microfilms
Order Number: 65-14,948

By: Jerold Everitt Elliott, Ph.D.
Indiana University
1965

Purpose

Elliott wished to identify factors that should be considered in the operation of year-around, multi-use camps. Multi-use refers to the fact that more than one organization or group will use the same facility for different reasons.

Procedure

Elliott made use of a jury of ten campsite authorities in the states of Michigan, Ohio, Indiana, and Kentucky in his study. Elliott researched literature for recommendations and used his findings to develop a lengthy list of items from which the jury selected 550 that were generally agreed upon as appropriate or needed in a year-around multi-use camp. These items covered every aspect in the establishment of camps from housing, facilities, food, camp acreage, administrators, activities, and environmental attractions. The list was then administered to 22 respondents, who rated each of the items as desirable, highly desirable, or undesirable.

Results and Conclusions

The survey resulted in a list of the factors found either desirable or highly desirable in building a multi-use camp.

Elliott had several conclusions. (1) There is little in the literature that pertains to what multi-use, year-around camp facilities should contain or be. There is, however, much agreement on these factors among camping authorities, (2) It is possible to design such a camp facility to meet most of its users' needs, with special adaptations being needed for handicapped groups, (3) The facilities, the location, and arrangement of the camp should depend upon its users' purposes and on the environment for such camps.

Jeanne Kuhn

ENVIRONMENTAL KNOWLEDGE AND BELIEFS AMONG GRADE 10 STUDENTS IN AUSTRALIA

University Microfilms
Order Number: 76-7747

By: Vivian George Eyers, Ph.D.
Oregon State University
1976

Purpose

Eyers wanted to learn what kinds of knowledge and beliefs tenth grade Australian students have about the environment and about environmental issues. The information would be useful in developing a coordinated environmental education curriculum in Australia. A comparison of results with U.S. students was also made.

Procedure

A sample of 4,821 tenth grade students in 174 schools in six Australian states was surveyed by mail. Introductory information, a letter of endorsement by the Regional Director of Education, an explanation of administrative procedures, copies of the survey instrument, and a return envelope were included in a packet sent to each school.

Eyers survey instrument was a modified form of the instrument developed at Ohio State University and used by Albert Perkes in 1973 to survey U.S. students. The instrument was reduced by Eyers from 80 to 40 items and made relevant to Australian evnironmental conditions and data. It is designed to measure environmental knowledge and attitudes.

Results and Conclusions

A response of 92% was achieved. The students scored 50% or more on ten of twenty-nine knowledge questions. They scored best on questions about population matters. Boys scored higher than girls. On the attitude section the results were reversed. Only 4.2% of the students indicated environmental courses as a main source of information. Those who claimed general reading and the media as their main source of information scored the highest on environmental knowledge. No regional differences were noted.

Eyers noted that differences in the survey forms used in the U.S. and Australian studies prevented a statistical comparison. General examination of the results indicated that U.S. and Australian students to be at similar levels of environmental knowledge and attitudes, however.

The high return rate of the survey (92%) lead Eyers to conclude that the schools in Australia are willing to cooperate in the development of an environmental education curriculum.

John Black

EFFECTIVENESS OF AUDIO-VISUAL MEDIA FOR ENVIRONMENTAL INTERPRETATION TO RECREATING MOTORISTS

University Microfilms
Order Number 75-24,180

By: Robert Larry Feldman, Ph.D.
Cornell University
1975

Purpose

Feldman wished to compare the effectiveness of two media designed for environmental interpretation to motorists while driving. The media were audio tape cassettes and brochures.

Procedure

Feldman's research was conducted at Adirondack Park in northern New York State in 1974. A sample of 1060 individuals ten years and older were divided in three groups; the control group, cassette group, and brochure group. Only out-of-state volunteers were used. The cassettes and brochures were given to the subjects to use as a guide to interpret their environmental surroundings such as natural history, ecology etc., as they drove through the park.

The text of the material in the brochure and cassette was basically the same. The cassettes were professionally read and included some music as well as sound effects. Two types of effectiveness were evaluated: (1) knowledge, as measured by an immediate recall quiz, and (2) behavior, as measured by use of four trails "advertised" in an interpretive text. At the end of the course through the park, both the cassette and brochure groups were given a twenty-five item multiple choice quiz to measure the knowledge gained. Also, the trail use was tabulated. The control group was given the same test at the beginning.

Results and Conclusions

The brochure group produced a significantly higher proportion of correct responses on two of the questions than the cassette group. It was found the recall for first time visitors was most effective with the cassettes where recall for repeat visitors was most effective with the brochures. For the drivers, it was found that the brochures were more effective for recall. For individuals whose family income was $20,000 or more and in parties of two or more, it was found that the brochures were more effective for recall. The cassettes and brochures were not significantly different in increasing trail use, except in one or two - motorist vehicles where the cassette was superior. The cassette and brochure group were both superior to the control group on the test scores as well as trail use, except in one or two - motorist vehicles where the cassette was superior. The cassette and brochure group were both superior to the control group on the test scores as well as trail use. This study suggests that environmental interpretation can be enjoyable, informative, and increase a motorist's knowledge about the environment as well as inducing motorists to walk on trails.

Scott Rigsbee

MAINE PARKS AND THEIR ROLE IN CONSERVATION EDUCATION PROGRAMS

University Microfilms
Order Number 70-12,550

By: Carl Nathaniel Fenderson
Columbia University
1969

Purpose

Fenderson examined the history of the state park system in Maine and the educational opportunities that are available in the system. Comparisons were made of the program in Maine, other state park systems, and the National Park Service.

Procedure

A study was conducted of the origin, development, and current use of the Maine state park system. A variety of resources were used including local histories, legislative records, and several conservation education documents. State and federal natural resource files were also used in the investigation.

Results and Conclusions

The state park system in Maine has received little or no public or legislative support. As a result of this lack of support, the Maine park system lagged behind the development of park systems in most other states. Philanthropy, New Deal programs, and the threat of federal controls all influenced the development of the state parks.

Educational programs are still substandard in the Maine park system. Educational programming has lacked financial support because sanitary maintenance and camping facilities were given budget priority. The few educational programs that are in existence were developed largely as a result of the National Park Service's educational program.

The state park system in Maine has recently developed to the point where a strong future seems imminent. Recent public and federal support could make the difference.

Michael J. Fager

THE EFFECT OF A SELECTED TEACHING PROCEDURE UPON THE ABILITY OF SIXTH-GRADE PUPILS TO EXPLAIN ENVIRONMENTAL PHENOMENA

University Microfilms
Order Number: 65-09,872

By: Alphortta Southworth Fish
University of Maryland
1964

Purpose

The researcher wished to find if the ability of sixth-grade pupils to (1) explain environmental phenomena, (2) recognize scientific facts, and (3) use skills of critical thinking can be improved with teaching procedures that emphasize opportunities to use concepts to explain phenomena.

Procedure

Fish used 24 sixth-grade classes (454 students) from the Rio Linda School District in California in the study. The classes were matched on the basis of mean I.Q. and pretested with "The Elementary School Science Test" and "A Test of Critical Thinking". By random selection one class of the matched set became part of the control group and the other class bacame part of the experimental group.

The science lessons were taught for a period of eleven weeks by the regular classroom teachers using the prepared lessons that dealt with concepts relating to matter and energy. The subjects in the experimental group were given opportunities to describe and explain phenomena. In the eighth week ten students from the control and ten from the experimental group were randomly selected for the post-test. This port-test was given after the eleventh week. The variance between groups was tested using the F-test and tests of singificant difference were made.

Results and Conclusions

Fish found that the experimental teaching procedure increased the pupils ability to explain environmental phenomena and their ability to use critical thinking. The teaching procedure did not increase the pupils ability to identify scientific facts.

Ken Wenzel

AN EXAMINATION OF THE RELATIONSHIP BETWEEN THE INTENTS AND OUTCOMES OF A RESIDENT OUTDOOR EDUCATION EXPERIENCE

University Microfilms
Order Number: 74-2793

By: Glenn A. Fleming
Northern Illinois University
1973

Purpose

This study examined the relationship between teacher's intent prior to a residential outdoor education experience and the outcomes as reported by the teachers and the students upon the completion of the experience.

Procedure

A sample of four intermediate grade classes from a University Laboratory school involved in a residential program were treated in a standardized interview. Data thus gathered was then categorized on basis of similarities according to a panel of experts. An analysis of congruence based upon a model developed by Robert Stake was applied to determine whether teacher intent and outcomes agreed.

Results and Conclusions

Teacher intents were categorized as subject matter goals, socialization, nature of learning environment, and attitude, feelings, or appreciations. The teacher assessment of outcomes did not include the aesthetics - attitudes, feelings or appreciation but the student assessment did include all four categories. External congruence of teachers intent and outcomes occurred for subject matter, socialization, and the nature of the learning environment and non-congruence in the aesthetics category. Internal congruences were found for teacher intent - outcome only for socialization. External congruence for teacher intent and student outcome was found in all four categories, whereas internal congruence was found only in subject matter and socialization.

The implications of the study is that a high degree of student imput in planning and a sharing of the responsibilities will enhance the value of the outdoor education experience.

A COMPARISON OF AFFECTIVE CHANGES BETWEEN ECONOMICALLY DISADVANTAGED AND ADVANTAGED SIXTH GRADERS AT A RESIDENT OUTDOOR EDUCATION PROGRAM

University Microfilms
Order Number: 74-11,307

By: Sarah Ann Fletcher, Ph.D.
Indiana University
1973

Purpose

Fletcher wished to determine if there was a difference in the affective outcomes of economically disadvantaged students and nondisadvantaged students who attended a five day residential outdoor education program.

Procedure

Fletcher's experiment was conducted with sixth graders at Lincoln School, Glann School and Larchmont School of Toledo, Ohio, in the spring of 1973. A random sample of 25 boys and 25 girls from Lincoln School (disadvantaged) and 25 boys and 25 girls from Glann and Larchmont Schools (advantaged) were selected from the students who took the pre-tests and post-tests, and attended the outdoor education program.

The three testing instruments used in the study were the "All About Me Scale," "The Norwicki-Strictland Locus of Control," and "Pre and Post Camp Questionnaires." The tests were administered to the sixth grade classes three weeks before and two weeks after they attended the resident outdoor education program. The test scores were calculated and analyses made to learn of the relationship of the items listed within the critical variables of self-reliance, ability to cooperate with others, and the transfer of positive values back to the classroom.

Results and Conclusions

After the five day resident outdoor education program, the majority of the students seemed: (1) to cooperate better with others; (2) to be more self-reliant and self-confident; (3) to like camp, as they wanted to return and stay longer; (4) and they made new friends there. There was only a moderate transfer of positive values back to the classroom after the camping experience. The Norwicki-Strictland Locus of Control appeared to be a more valuable and sensitive testing instrument, than the other tests used in the study.

Melode Borell

A JOB ANALYSIS OF SCHOOL CAMP DIRECTORS

University Microfilms
Order Number: 62-4801

By: Robert H. Frey
Boston University
1961

Purpose

Frey set forth to analyze and identify the duties of the school camp director and their relationship to the training of school camp directors.

Procedure

The initial step in Frey's job analysis was to collect and identify the duties of the school camp director. His use of interviews, checklists and an analysis of the literature resulted in a list of three hundred and seventeen duties. These duties were placed into seven categories: (1) administration, (2) supervision, (3) instructional, (4) community activities, (5) plant and supplies, (6) special services, and (7) personal duties and contributions. This list was sent to an advisory board of ten people well known in school camping. Then a rating scale for these duties was developed. Each duty was rated with criteria for 1) frequency, 2) difficulty, 3) importance, and 4) recommendations for professional curriculum. This rating scale was reviewed by students in a graduate class at Boston University for the purpose of clarifing the instructions and duties. Then it was sent to ten school camp directors to further clarify the classification of duties. The scale was again revised and sent to the one hundred and forty-eight respondents.

Results and Conclusions

Based on the data collected one hundred and twenty-five duties of a school camp director were identified. Frey arrived at several conclusions about duties and curriculum planning:

1. Some duties were rated high in all criteria: (a) orientation of new staff; (b) interpretation of the program to teachers; (c) assist teachers in development of skills and use instructional materials. These should be given highest consideration in curriculum planning, he held.

2. Some duties rated high in all criteria except frequency: (a) hire personnel; (b) work on analysis and revision of curriculum; (c) develop standards for guidance; (d) develop curriculum materials; (e) participate in planning facilities. These duties should be given high consideration in curriculum planning, Frey concluded.

3. If a duty was rated high in importance and low in difficulty it should also be considered of high importance to curriculum planning such as:(a) demonstration teaching;(b) holding conference with staff; (c) attend teachers meetings to prepare them for camping experiences.

Ken Wenzel

AN ECONOMIC MODEL OF OUTDOOR RECREATION BEHAVIOR

University Microfilms
Order Number: 75-10,175

By: Elizabeth Gardiner
University of Michigan
1974

Purpose

The first purpose of this study focuses on recreation facilities as one set of inputs necessary to recreation participation. A second purpose was to investigate empirically the effect of a "supply of facilities" variable with participation in the relevant activity.

Procedure

A study by the Survey Research Center in 1971 was the primary source of data. It was based on a representative sample of U.S. households. Recreation activities involved: (1) boating, (2) outdoor swimming, (3) camping, (4) bicycling, (5) nature walks, (6) hiking, (7) picnicking, (8) tennis, (9) golf, (10) outdoor water sports, and (11) other outdoor sports and games.

Gardiner applied two stages in this study. Stage 1 - the analysis of whether or not the individual participates at all. Stage 2 - the frequency of participation given that one does participate.

Results and Conclusions

Gardiner found that people with low income ($7500 or less) and those over age 55 very seldom use recreational facilities such as boating and camping. This is because substantial expenditures are necessary to participate in the activity. To get more involvement from these groups it was felt that lowering or proportioning the cost and setting up facilities requiring little energy output for these people would help.

If some facilities are used to capacity it would be better to provide new facilities that would act as substitutes rather than as complements.

One of the most interesting results in this area is the relationship between the availability of public boat ramps and participation in camping. Camping and boating areas act as complements for the less educated and as substitutes for the more educated. This indicates that substitutability and complementarity does exist between facilities.

James Burns

A COMPARATIVE ANALYSIS OF CONSERVATION ATTITUDES IN SITUATIONS WHERE CONSERVATION EDUCATION IS A PART OF THE EDUCATIONAL EXPERIENCE

University Microfilms
Order Number: 66-14,123

By: Robert Worth George
Michigan State University
1966

Purpose

The first purpose of this study was to compare conservation attitudes of high school students, college students, and adults. The second was to learn the relationship between these attitudes, and factors of age, sex, education, and living environment. Finally, George wished to learn if the attitudes are influenced by 4-H projects, personal characteristics, extra curricular activities, and a "special" educational experience.

Procedure

A Likert-type attitude scale with 64 conservation statements was given to the three groups: (a) high school students, (b) college students, and, (c) adults. These conservation attitude scores were compared and the scores were related to factors appearing to affect conservation attitudes such as personal characteristics, extra curricular activities, and 4-H projects. The attitude change resulting from a "special" experience designed for each group was also studied.

Results and Conclusions

A comparison of the scores showed adults scoring highest, and college and high school students following in that order. The analysis revealed that certain factors affect attitudes more than others, and that many are interrelated. Score results which dealt with personal characteristics showed that age and education were tied to the difference in attitudes at the high school level; age and sex were significant for college students; and sex and residence background for adults. The activities' scores revealed that those stressing conservation had the greatest effect. High school students and adults involved in 4-H projects had more favorable attitudes towards conservation; college students showed no change. The "special" conservation education experiences indicate that attitudes towards conservation do change, especially with interest motivation and exposure to conservation.

James Burns

THE IDENTIFICATION AND EVALUATION OF PRINCIPLES OF SOIL AND WATER CONSERVATION FOR INCLUSION IN THE SECONDARY SCHOOL CURRICULUM

University Microfilms
Order Number: 7919

By: Harvey Freemont Glidden
University of Nebraska
1953

Purpose

The purpose was to find out what principles of soil and water conservation need to be developed at the secondary school level. Also which, if any, of these principles are being learned from active participation in American life (school, school clubs, reading, listening).

Glidden wanted to find out if there was a need to modify existing curriculum in soil and water conservation. Studies done earlier showed an absence of information on the topic of Glidden's study. Part of his study deals with finding out how much information high school seniors can master or understand in the area of soil and water conservation.

Procedure

Acquiring all existing literature on soil and water conservation was the first step. This provided a foundation for developing secondary school curriculum, and a list of appropriate principles.

Specialists in the area of soil and water conservation were asked to check the list for clarity and pertinent information above what was in the existing literature. This refined list was given to science educators and secondary curriculum educators to see if the information was adequate for adaptation to the secondary school.

Statistical analysis was then done on these lists and reports and the "bad" or "poor" principles were eliminated. Finally, tests were prepared to measure knowledge of principles of soil and water conservation. These tests were then given and the results were analyzed.

Conclusion

Due to this study, a list of pamphlets and literature was provided which would contribute to knowledge in soil and water conservation. A list of 26 principles in soil and water conservation approved by professional conservationists and educators was completed. This was used to formulate curriculum for secondary school educators. A test was developed to measure facts and important understanding in soil and water conservation for use in high schools and junior colleges.

Joel Van Der Puy

THE HISTORY AND DEVELOPMENT OF HUNTINGTON MEMORIAL OUTDOOR EDUCATION CENTER, RAQUETTE LAKE, NEW YORK, STATE UNIVERSITY OF NEW YORK COLLEGE AT CORTLAND

University Microfilms
Order Number: 73-18,896

By: Vincent John Gonino
Ohio State University
1972

Purpose

The purpose of Gonino's study was to trace the history and development of Huntington Memorial Outdoor Education Center and to make investigations about its use. Gonino also wished to deal with initial as well as potential programs and educational ventures.

Procedure

An extensive review was made of data that pertain to the Center using basic historical methods of research. Material included minutes of meetings, annual reports, constitutions, handbooks, newsletters, programs of various events, letters, court decisions, newspaper clippings, pamphlets, deeds, publications, and receipts.

Seventeen taped interviews (including those with professors and retired professors responsible for establishing and implementing educational programs at the Center) plus numerous photographs and maps were incorporated into the body of material.

Files and archives of the State University of New York, College at Cortland, the Blue Mountain Adirondack Museum Library, and Huntington Memorial Outdoor Education Center Library were examined and reviewed.

Results and Conclusions

Gonino dealt with three main themes pertaining to the history of the Adirondack Mountains where Huntington Memorial Center is located: (1) the coming of the early land barons who only wanted to exploit the abundant natural resources of the area, (2) the discovery of the region as a tourist attraction, and (3) as the area pertains to camping and outdoor education. Currently a ten month undergraduate education program for students at College of Cortland is operating. Recommendations to extend use of the Center on a four-priority basis with the main emphasis on required and elective graduate and undergraduate courses were presented.

Beverly Kruse

A COMPARATIVE STUDY OF SELECTED PERSONALITY TRAITS IN COLLEGE STUDENTS AND THEIR PARTICIPATION IN SELECTED OUTDOOR RECREATIONAL ACTIVITIES

University Microfilms
Order Number: 72-34080

By: Janet S.L. Gunn
University of Georgia
1972

Purpose

To determine whether persons with similar personality traits select similar recreational activities was a major objective of this study. Gunn also attempted to find whether there was a difference between men and women in their personality traits and selection and participation in activities.

Procedure

Students from a college psychology course completed the Adjective Check List to measure personality traits and the Outdoor Recreational Activity Index to identify individual participation in forty-four outdoor recreational activities. Rate of participation was in activity days per year. Multiple correlation analyses were used to determine the relationship between each activity variable and each personality trait variable. A standard *t*-test was used to determine the effect of sex upon the activity and the personality trait relationship.

Result and Conclusions

Recreation is a need-fulfilling behavior. Significant interrelationships among need states, personality traits, and outdoor activities were found. Substitution of outdoor activities is desirable whenever resources are limited. Introverted personalities did not participate in outdoor recreational activities except for individualized activities. Heterosexual involvement in the same outdoor activity has been increasing and therefore influences programs and facility planning for many agencies.

THE ESTABLISHMENT OF PRINCIPLES OF HUMAN RELATIONS THAT MAY BE USED IN THE TRANSITION OF ALL-WHITE OR ALL-NEGRO CAMPS TO INTERRACIAL CAMPS

University Microfilms
Order Number: 59-1045

By: Thomas A. Hart
New York University
Ed. Dept. 1958

Purpose

Hart set forth to establish principles of human relationships that can be used in the transition of all-white or all-negro camps to integrated camps.

After the principles have been formed they will be checked and tested for their workability when applied to a certain group of interracial camps.

Procedure

The documentary and survey methods of research were used in conducting this study. Descriptive investigation was used to learn pertinent information about an existing situation. There were five specific procedures used in collecting data; (1) review of literature and materials; (2) collection of statements on human relations and camping; (3) organization of statements; (4) formulation of principles from the statements and (6) validation of principles using a jury of experts.

Five directors of interracial camps worked together to test the workability of each principle.

Results and Conclusion

There were fourteen concepts of basic American democracy that were used. All of the directors gave their approval for these basic premises.

The investigator also found twenty principles dealing with human relations that were divided into four major headings: (1) relating to democratic values in society, (2) relating to individuals, (3) relating to minorities, and (4) relating to leadership.

There were seven major areas of camping found to be most important in improving human relations.

Hart concluded that the camp has many desirable characteristics that may aid in the development of human relations. The principles that have been established in this study are valid and applicable according to the literature and in the judgement of five outstanding interracial camp directors. The conclusions that have been formulated are primarily a guide post for stimulating the thinking of camp directors, counselors, parents, and all other interested parties.

Walter Johnson

AN EVALUATION OF AN EXPERIMENTAL STRESS-CHALLENGE ENVIRONMENTAL EDUCATION COLLEGE COURSE

University Microfilms
Order Number: 74-6206

By: John Vernon Hartung
Southern Illinois University
1973

Purpose

Hartung's study was to describe the development, use, and effectiveness of the Winterim program at Southern Illinois University. The Winterim program was designed to integrate the stress qualities of Outward Bound with Environmental Education. This course was designed as a conscious effort to blend Outward Bound processes with environmental education. It includes work at the outdoor laboratory and presentations in areas such as resource conservation, human dynamics, environmental perspectives and cultural awareness. Hartung expected the program to increase the students awareness both of themselves and their environment.

Procedure

The Winterim program was given during the college interim period in January, 1973, at Southern Illinois University.

Hartung used three evaluation instruments to learn if changes occurred in the participants. The instruments dealt with self-awareness, environmental preference, and environmental comprehension.

The seventeen participants in the Winterim were tested along with two control groups of college students. The first test was the Environmental Preference Test and students were to rate their feelings on a nine point Likert scale. The second test was the Environmental Comprehension Questionnaire. The third test being the Personal Orientation Inventory developed by Shostrum. It was used as both pre and post test. A fourth instrument was used only for the Winterim participants and was an inventory of the daily events. The students were asked to evaluate these events for their value.

Results and Conclusions

Statistically it was shown that environmental preference of the participants was changed significantly toward the awareness of problems confronting the environment, the individual's effect on these problems, and a total awareness of the deteriorating state of the environment. Analysis also showed there was not a significant change in the correlation between environmental preference and environmental comprehension. The course was well received by the participants and appreciation given for the total program.

Sandra Gunderson

EFFECTIVENESS OF PROGRAM OF AGRICULTURE IN ELEMENTARY SCHOOLS WITH EMPHASES ON SAFETY, SANITATION, AND CONSERVATION

University Microfilms
Order Number: 72-19,319

By: Robert Donald Herr
Pennsylvania State University
1971

Purpose

Herr's study was to determine the effectiveness of a program of agriculture in elementary schools that emphasized safety, sanitation, and conservation, He also wanted to determine which of the three teaching methods tested was most effective.

Procedure

Herr's study was done with 539 sixth grade students in 22 schools in Lancaster County, Pennsylvania.

Four methods of teaching were used. In method A a subject matter specialist taught the resource unit. Method B had the homeroom teacher teaching the resource unit, with the subject matter specialist as a resource person. In Method C, the homeroom teacher taught using a brief course outline, and the specialist served as a resource person. In Method D (the control group) no instruction was given other than the normal curriculum and no resource person was used.

Herr used three evaluation instruments, the Kuder E Interest Survey, the Attitude Game, and the Agricultural Science Achievement Test. The three tests were given by the same individual to all students both at the beginning and end of the school year.

Results and Conclusions

The results showed the agriculture program did increase knowledge and improve attitudes about agricultural concepts. There were no conclusive findings that interest in agriculture was either increased or decreased. The two groups that used the resource unit showed a greater improvement in knowledge and attitude changes than did the groups that didn't use the resource unit. A thorough examination of the results also showed that a subject matter specialist is needed to coordinate the program, assist in developing the resource unit, and serve as a resource person to the homeroom teachers conducting the program.

Sandra Gunderson

IDENTIFICATION OF THE COMPETENCIES NEEDED BY THE CLASSROOM TEACHER IN PROGRAMS OF RESIDENT OUTDOOR EDUCATION

University Microfilms
Order Number: 74-13,131

By: Lillabelle Holt,
Ohio University
1973

Purpose

Identifying the needed teacher competencies for teaching in programs of resident outdoor education was Holt's concern in his study. A determination of competencies presently included in pre-service elementary education programs and comparison with the needed competencies also would give a list of competencies to recommend for both pre-service and in-service teacher programs. The term competency referred to a skill or knowledge rather than an attitude needed by a teacher to effectively guide the learning of students in a resident outdoor education program.

Procedure

A list of competencies for teaching in a total-living outdoor situation was developed from a review of literature and from the investigators' own experience. These competencies were sent as an opinionnaire to leaders of resident outdoor education program leaders and to a group of classroom teachers in a university service area. The classroom teachers were 4-5-6 grade teachers with or without outdoor teaching experience.

Results and Conclusions

Opinionnaires were returned by 102 administrators and 840 teachers. Competencies were rated on a scale of one to five for needed by teachers and as already held by the teachers. Using a mean of 3.5 or more as the accepted level, 91 competencies were accepted by both the leaders and the teachers as needed for teaching in the outdoors but not held by the classroom teacher.

Holt concluded that teachers in Ohio generally did not have the competencies needed for successful participation in a residential outdoor education program. Therefore, competencies needed for planning and implementing outdoor education programs should be included in all pre-service elementary education programs and in workshop or graduate courses for in-service teachers.

A COMPARISON OF TWO METHODS OF INSTRUCTION IN ENVIRONMENTAL EDUCATION

University Microfilms
Order Number: 74-29,071

By: E. Hosley, Ph. D.
University of Maryland
1974

Purpose

Hosley wished to compare the impact of two methods of instruction in environmental education: (a) laboratory (classroom) using Audible Multi - Imagry (AMI), and (b) field experiences. In addition, a dual treatment of AMI plus field experiences was compared with these two methods and with a control group.

Procedure

Hosley's study was conducted with selected fifth grade students participating in the Environmental Education Program of the Prince George's County Schools, Maryland.

Steps in conducting the investigation included the development of an area of concentration in environmental education at the elementary level. This curriculum was then applied by the researcher through AMI and traditional field experiences. Curriculum materials were withheld from all subjects prior to program participation. A comparison was made of each groups performance on a retention test measuring ability in knowledge of environmental or ecological concepts.

Results and Conclusions

This study demonstrates that AMI as a laboratory or classroom method of instruction *is as effective as a field experience* in conveying selected concepts of environmental education. The study also showed *that AMI combined with field experience is more effective* than AMI only in teaching certain environmental education concepts.

James R. Koinis

THE EFFECT OF A STUDENT MANUAL ON THE ATTITUDES OF HIGH SCHOOL STUDENTS TOWARD ENVIRONMENTAL PROTECTION

University Microfilms
Order Number: 73-20,841

By: David Lyon Howell
Ohio State University
1973

Purpose

Howell wished to evaluate the effectiveness of the student manual, Introduction to Environmental Protection, in terms of developing students' attitudes toward environmental protection.

Procedure

Howell's experiment was conducted in Ohio high schools using students in vocational agriculture, vocational management, and science classes dealing with environmental protection. The experimental group used the student manual, while the control group did not have the use of the student manual.

Selected characteristics of instructors and students were also investigated to determine their relationship to the students' post-test attitude inventory scores. These independent variables tested were: (1) the number of professional environmental education courses completed by the instructor, (2) the time (weeks) devoted to teaching the environmental protection unit, (3) the number of films shown in teaching the environmental protection unit, (4) the number of experiments instructors used in teaching the unit, and (5) relationship between students' post-test attitude inventory scores and their occupational choice.

Intact classes having a unit of study on environmental protection were randomly selected into control and experimental sections in the vocational agriculture, and science areas. There was no control group in the vocational environmental management area. An attitude inventory was developed to measure the attitudes of students toward the protection of the environment. Students' attitudes were collected using the randomly selected pretest - posttest and posttest only groups.

Results and Conclusions

There was no significant difference in posttest attitude inventory scores between students using the manual and students not using the manual. There was a positive relationship between the professional environmental courses completed by the instructor and student posttest scores.

Roger Moellering

THE EFFECTIVENESS OF OUTDOOR EXPERIENCE VERSUS CLASSROOM EXPERIENCE IN LEARNING THE COGNITIVE DIMENSIONS OF ENVIRONMENTAL EDUCATION

University Microfilms
Order Number: 73-16,728

By: Thomas Richard Howie, Ph.D.
George Washington University
1972

Purpose

Howie wanted to compare the achievement made by fifth grade students experiencing classroom instruction with fifth grade students experiencing instruction in the outdoors.

Procedure

Howie's experiment was conducted with four randomly selected groups of fifth grade students (N=438) from the Prince George County (Maryland) School System. Group I participated in ten one-hour classroom sessions using materials closely related to the type of environmental activities of Group II. Group II participated in a two-day resident outdoor education experience. Group III participated in both indoor and outdoor sets of experiences. Group IV served as a control participating in no formal outdoor education experiences.

The Iowa Basic Skills Test, reading and vocabulary subtests, was used as the pretest to determine homogeneity of the four groups. The Environmental Resource Concepts and Application Survey designed by Howie was used as the posttest.

Results and Conclusions

Students who participated in classroom activities scored higher on the total cognitive and conceptualization tests then the outdoor group but lower on the application of information test. Students who participated in both classroom and outdoor activities had the highest level of achievement.

A well balanced plan of classroom activities followed by outdoor experiences is more effective than classroom or outdoor experiences alone, concluded Howie.

John Black

A PHILOSOPHICAL ANALYSIS OF THE SPIRITUAL AND MORAL VALUES IN CAMPING

University Microfilms
Order Number: 19,992

By: Josephine Hubbell, Ph.D.
New York University
1956

Purpose

This study deals with the spiritual and moral values the everyday experiences a child encounters while at summer camp.

"There are three factors pertinent to the study:

1. Spiritual and moral values have generally been accepted as important in schools.
2. Camping is beginning to assume a more important role in the total education of the child.
3. Little emphasis has been placed upon camping as a specific and important area in education for developing spiritual and moral values."

Procedure

Hubbell used the documentary method of research in gathering material for the study. There had not been much written on this subject, prior to this study, so sources were limited. However, a careful effort was made to select as sources writers who are acknowledged leaders in the camping field and writers who have gained recognition in religious education.

The study contains two parts: (1) identifying spiritual and moral values, and (2) a description of camp functions and their ramifications in an organized summer camp for spiritual and moral values.

Certain human qualities such as truth, honesty, responsibility, and others were described. It is then shown how these characteristics can be incorporated into the summer camp experiences, and how a camp can be used to develop these qualities in campers.

Conclusion

Hubbell offers a variety of ways to tie in all of the spiritual and moral characteristics with which she dealt into the camping situation and into everyday experiences, a solution to the purpose of the study.

The study also points out, (1) how undeveloped this area of camping is, and (2) the need for further study into this area of research.

Walter Johnson

EFFECTS OF IN-SERVICE TRAINING ON ELEMENTARY TEACHERS PERTAINING TO SCIENCE ACHIEVEMENT AND ATTITUDES TOWARDS ENVIRONMENTAL SCIENCE

University Microfilms
Order Number: 73-3898

By: Harold Wayne Hulleman, Ph.D.
Iowa State University
1972

Purpose

Hulleman wanted to learn three things. (1) What changes occur in the achievement and attitudes of teachers following an in-service program in environmental science? (2) What relationship is there between these changes and academic and personal characteristics of the teachers? (3) What implications do these relationships have for school administrators organizing in-service programs?

Procedure

Hulleman conducted his study in conjunction with Project ECO, an environmental awareness program of the Ames (Iowa) Community School District in 1971-72. Fifty teachers in grades one, three, and five were randomly selected from ten elementary schools. Half were designated the experimental group and the other half the control group.

The experimental group participated in three half-day in-service programs during the 71-72 school year. These programs focused on explorative activities, field trip sites, and needs. The teacher then followed-up each session with a field trip with students. The control group of teachers did not receive the in-service instruction nor were they involved in field trips with their students within Project ECO.

Pre and post tests were given in the fall and spring. Attitudes towards environmental concepts were measured using an instrument designed by the author. The Test of Science Knowledge (TOSK) was used to measure cognitive abilities related to scientific principles and methods. Personal data (age, teaching experience, and college science credits) were obtained from the teacher's personnel files.

Results and Conclusions

The experimental group did not show greater gains on the attitude scales or TOSK measurements. A negative relationship was found between age and TOSK scores. Hulleman stated that his personal observations indicated to him that the experimental group did exhibit positive gains in attitudes. He felt equal gains were exhibited by the control group because of the contamination effect of teachers sharing ideas and competing with one another. Administrators need to be aware of such effects when instituting in-service training and the need to maintain communications between teachers and administrators.

John Black

PERCEPTIONS OF TEACHERS ABOUT SELECTED ENVIRONMENTAL PROBLEMS

University Microfilms
Order Number: 77-3648

By: Linda Chance Hyde
University of Tennessee
1976

Purpose

Hyde wished to examine teacher perceptions of (a) the role of the school, (b) the role of the teacher, and (c) the perceived classroom treatment of some 94 selected environmental issues, problems and concepts. She wanted to know if responsibility for environmental education was being assumed across all disciples and if perceptions about the responsibility for teaching environmental concepts differed by teaching area and by teacher biographical background.

Procedure

Hyde developed a questionnaire of 94 environmental issues, problems, and concepts using a comprehensive search of the literature and items submitted by experts in environmental education. The sample population consisted of 681 teachers in Jefferson County (Louisville), Kentucky. Fifty-six percent return was attained. Questionnaire responses were analyzed and comparisons were made of the responses of groups with various biographical and background characteristics.

Results and Conclusions

(A) Most of the respondents (2/3 or more) felt it to be the responsibility of the school to deal with the 94 questionnaire items; but, only about 1/4 believe it to be their own responsibility.

(B) More teachers of fine arts, business, home economics, science and social studies felt the school should teach about the 94 items than did teachers in other areas.

(C) More teachers of home economics, science and social studies felt it to be their own responsibility to deal with the topics in the classroom than teachers in other areas.

(D) Teachers of science and social studies more often said they made a deliberate planned effort to include the 94 items than did others.

Hyde found few differences in the way respondents of different age and religious affiliation groups answered concerning the 94 items. And, fewer than one-half the teachers had ever participated in an activity designed to help them to use environmental activities in the classroom. A majority indicated a willingness to participate in such activities.

Hyde concluded that there was a strong need for (a) in-service environmental education of teachers, and (b) more extensive, systemwide planning for effective environmental education programs.

CAMPING EDUCATION

University Microfilms
Order Number: 1129x179116

By: Frank Lewis Irwin
New York University
1948

Purpose

Irwin wanted to prepare a manuscript for a book dealing with the educational aspects of organized camping. It was written for camp directors and contains specific methods by which camping can help meet the goals of education.

Procedure

A panel of experts was selected to judge the materials gathered through a review of literature and through personal contact. The judgements were to be based on the relevancy to the aims and objectives of education. A questionnaire was sent to camp and school leaders across the United States.

Results and Conclusions

From the gathered data, a book was written and entitled Camping Education. It traces the historical background of camping and justified camping as a part of the school educational program. Guide lines for program development and personnel growth and training are given. Sufficient information is given to assist a school administration to set up and operate a school camping program as part of the regular school curriculum.

IDENTIFICATION OF CONCEPTS THAT WILL SERVE AS A BASIS FOR DEVELOPMENT OF ENVIRONMENTAL EDUCATION INSTRUCTIONAL MATERIALS

University Microfilms
Order Number: 73-56

By: Orville Louis Isabell
Washington State University
Education Dept. 1972

Purpose

The study was designed to provide a basis for the development of educational materials in environmental education.

Some concepts with which it dealt were ecological in nature, being largely concerned with the manner in which an ecosystem functions and the recognition of certain factors which affect the stability of an ecosystem.

The last part of the study was concerned with the ways in which the concepts might be used by curriculum builders in environmental education.

Procedure

A review of pertinent scientific research and analysis was done to identify major ecological concepts.

Each concept was defined in nontechnical terms, and its relevance to the study was stated.

Some of the more important human implications of the concepts were identified and discussed.

Results and Conclusions

The development of positive attitudes comes from positive conditions and as few adverse conditions as possible. Positive attitudes are fostered by positive experiences.

Two characteristics of educational experiences appearing to develop positive attitudes are; (1) not grading students for their participation of lack of it, and (2)orienting experiences in environmental education toward cooperative rather than competitive activities.

The identification of fundamental concepts was undertaken. Such concepts possess a high degree of universality and therefore lend themselves to different types of curriculum developments.

Increased satisfaction in environmental activities can be achieved by having a high degree of student and community involvement in real problems and projects outside the school, Isabell concluded.

Walter Johnson

ATTRIBUTES OF PUBLIC ELEMENTARY SCHOOL TEACHERS AND THEIR INFLUENCE ON THE TEACHING OF ENVIRONMENTAL CONSERVATION IN INDIANA IN 1970

University Microfilms
Order Number: 76-546

By: Joseph C. Jankowski, Sr.
Ph.D., Purdue University
1975

Purpose

The purpose of this study is to identify and measure the cognitive and connotive attributes of teachers and their relationship to the amount of instructional time they devoted to environmental conservation in Indiana elementary schools in 1970.

Procedure

Use was made of 922 teachers and 97 principals from 100 randomly selected schools in this study. A conceptualized model was developed for describing the environmental conservation proficiency development process for the elementary school teachers.

Influences on the schools in which the teachers taught, such as location of the school, size and grade levels, were considered. Personal attributes of teachers, such as sex and age, were studied as possible influences on time devoted to conservation by the teacher. Principals provided information which was used to assess the effectiveness of the teachers in developing environmental conservation concepts and to assess the validity of the amount of time devoted to teaching about environmental conservation as a valid tool in assessing teacher performance.

Results and Conclusions

Jankowski found: (1) 19% of the teachers did not devote any time to environmental conservation. On the average teachers used 4.1% of the instructional time for environmental conservation, (2) men tended to devote more time to the subject than women, (3) the location and size of the school and the grade levels did not significantly influence the amount of time devoted to environmental conservation, (4) an interest in the outdoors and in fishing was characteristic of teachers devoting time to the subject, however camping activities had no affect, (5) few teachers subscribed to environmental conservation periodicals or participated in environmental conservation organizations; but those who did tended to devote more time to the subject, (6) teachers devoting considerable amounts of time to environmental conservation had taken courses in Chemistry, Physical Science and General Science, (7) environmental conservation concepts were most often taught in General Science, Social Studies, and Art, (8) outdoor education was provided for all grade levels, but the upper grades spent more time at the outdoor centers, (9) teachers felt priority was not given to environmental education, (10) administrators felt that the teachers weren't motivated to teach about this area, (11) and principals indicated that a lack of teacher's training was the primary factor for inadequate teaching of the subject.

Melode Borell

DEVELOPMENT OF A CAMPER ATTITUDE SCALE TO EVALUATE ATTITUDINAL CHANGE TOWARD A SPECIFIC CAMP OBJECTIVE

University Microfilm
Order Number: 66-3446

By: Barbara Ellen Jensen
The University of Iowa
1965

Purpose

This study was undertaken to develop an evaluation tool to measure attitude change to program experiences indiginous to the natural environment.

Procedure

A Likert type attitude scale was developed and evaluated by an item analysis procedure. Thirty items were ultimately selected for two parallel forms of the attitude scale. Nine concept areas were equally treated in both forms. These included: overnights, cooking out, beauty in Nature, hiking, Nature curiousity, etc. The attitudes of campers in an experimental outdoor related camp were compared to those in a control camp.

Results and Conclusions

Jensen found that attitudes can be changed positively toward experiences indiginous to the natural environment by means of emphasis on outdoor - related programs. No statistically significant differences in amount of attitude change was noted between the two program methods under investigation.

JAY BRYAN NASH: HIS CONTRIBUTIONS AND INFLUENCES IN THE FIELDS OF PHYSICAL, HEALTH, RECREATION, CAMPING AND OUTDOOR RECREATION

University Microfilms
Order Number: 67-11,140

By: Harvey Jessup
New York University
1967

Purpose

The purpose of this study was to review the professional contributions of Jay Bryan Nash and to relate these to his influence on physical, health, recreation, camping, and outdoor recreation.

Procedures

The sources of data used were the literature, testimony given by those knowledgeable in the field, and primary sources. An examination was made of all the existing writings by Nash during his college days and the early period of his professional life. This data has been collected from three sources: (1) autobiographical sketches obtained directly from Nash, (2) correspondence or interviews with teachers, supervisors, friends, and colleagues during his college days, and (3) the doctoral thesis, school reports, speeches, articles and other documents written by Dr. Nash.

For additional data concerning the professional career of Dr. Nash, statements and evaluation judgements were obtained from selected leaders in the field.

Newspaper and magazine accounts were considered as primary sources if they simply reported facts about a book or incident.

Much time was spent checking the accuracy of all primary and secondary sources.

Conclusion

Nash's leadership and his influence on the growth of professional organization in the fields of physical, health, recreation, camping and outdoor education is unparalleled. His accomplishments and contributions made him one of the most widely known leaders of his generation in the profession.

The evidence, from the study, clearly demonstrates what a major factor Jay Bryan Nash was in the shaping and in the continued development of the fields of physical, health, recreation, camping, and outdoor education.

Walter Johnson

A COMPARATIVE STUDY OF ENVIRONMENTAL EDUCATION COMPETENCIES OF THIRD GRADE STUDENTS AND THEIR TEACHERS

University Microfilms
Order Number: 77-5831

By: Virginia Ann Jones
Michigan State University
1976

Purpose

Jones wished to study the levels of environmental education competency of third grade students and their teachers in relation to the Michigan goals of environmental education. She wished to know if a relationship exists between behavior and knowledge about the environment, and if there is a relationship between teachers' environmental education competency and the environmental education competency of their students.

Procedure

436 third graders were given an Environmental Education Competency Measure (EECM) based on the Michigan K-3 Minimal Performance Objectives. A "C" score was obtained for each student using this instrument. Teachers were asked to observe these students and to rate (using a checklist) each according to exhibited environmental behaviors. This resulted in an affective-behavior (AB) score for each student.

The teachers of these students completed an EECM based on the Michigan 7-9 Minimal Performance Objectives, and an affective-behavioral component of self reported responses. Each teacher was also interviewed and a total EE competency score was derived. Statistical analyses were made to learn of any relationships between student and teacher environmental competencies.

Results and Conclusions

A high correlation was found between student "C" scores and "AB" scores. No such correlation was found for teachers. No correlation was found between either the cognitive or affective-behaviorial scores of teachers and the scores of their students.

Overall, it was found that both the third grade students and their teacherswere low in regard to the Michigan Goals for Environmental Education. These low achievement levels point to the urgent need to make environmental education programs available at all educational levels, concluded Jones.

REPEATED OBSTACLES -PARTICIPANT EXPECTATION (ROPE) PROJECT: DESIGN AND IMPLEMENTATION OF AN OUTDOOR LEARNING EXPERIENCE

University Microfilms
Order Number: 74-19725

By: Daniel F. Joynt,
Boston College
1974

Purpose

1. To design a ropes course and manual for pre-adolescents by modifying Outward Bound, Project Adventure and movement education techniques.

2. To develop a technique for observing participants in the course.

3. To investigate two different methods of reinforcement in rope courses for pre-adolescents.

Procedures

1. Two pilot studies were undertaken at Hale Reservation in Westwood, Massachusetts, in preparation for the actual treatment.

2. Pilot I: A group of 8, 9, and 10 year old children worked with the camping staff in the actual construction of the course in order to modify tasks relative to their height, weight, and strength.

3. Upon completion of Pilot I, Joynt developed a course manual including warm-up activities, group sizes for tasks, time allotment for each task and explanations of the tasks.

4. Pilot II: This study was used to evaluate the course manual and to develop a practical method for observing participant behavior.

5. Treatment: 140 third, fourth, and fifth grade students from Newton, Massachusetts were selected and randomly divided into an experimental group and a control group. The children were then sub-divided by age.

6. One half of the experimental group experienced instructors who were non-directive, giving no reinforcement themselves but letting it emerge from the other participants. The other half experienced instructors who were directive, giving reinforcement continually.

Results and Conclusions

1. Risk taking, competence, reaction to obstacle and leadership-orientation were found to be important behaviors to observe.

2. Instructors who used the non-directive method found it difficult to implement and were uncomfortable with it.

3. Those using the directive approach felt it was a very effective way of working with the group. They felt it was very effective in promoting individual and group problem solving.

4. Joynt concluded that a combination of the two teaching methods would be the most effective means of instruction.

Gail Abrams

A NINE YEAR COMPARATIVE STUDY OF THE STATUS OF CONSERVATION EDUCATION IN PUBLIC ELEMENTARY SCHOOLS OF NEW YORK STATE FROM 1955 - 1964

University Microfilms
Order Number: 66-3517

By: Raymond George Kenyon
State University of New York
at Buffalo 1965

Purpose

Due to the changing nature of elementary and conservation education in the mid 50's to the mid 60's, Kenyon wanted to interpret the trends of natural resource education in New York elementary schools. He wanted to study teacher (1) philosophy and methodology in conservation education, (2) pre-service and in-service education, and (3) use of materials in conservation education. This was done by the use of comparative studies.

Procedures

Questionnaires were sent to a random sampling of 3,191 teachers in 250 elementary schools in New York state. Principals were also sent these questionnaires. 60% of those contacted responded.

When questionnaires were returned they were placed in categories of teachers and principals. From the responses, the following concepts were reviewed, trends in conservation education; needs in improving conservation education; projects and organizations used in conservation education; philosophy of conservation education. Charts and tables in raw count, percents and chi-squares were prepared of the 1955 and 1964 data and then comparative analyses were made.

Results and Conclusions

Principals considered the greatest need for improving conservation education to be in-service education and conservation education handbooks. The study found that over this period of nine years the New York State elementary schools have failed to change the status of their conservation education programs.

Science texts were not extensively used for conservation education and many teachers failed to teach by adapting the conservation curriculum to their local region.

Kenyon recommends continuous evaluation of conservation education. Further, he recommends that conservation be taught in state teachers colleges. And finally, he holds that there is a need for better leadership in this field.

Joel Van Der Puy

THE DEVELOPMENT AND EVALUATION OF A CURRICULUM FOR THE BLUE MOUNTAIN ENVIRONMENTAL SCHOOL

University Microfilms
Order Number: 74-20,875

By: Herald Duane Keown
Ball State University
1974

Purpose

Keown wished to develop and test a usable natural science or natural environment curriculum incorporating intellectual and emotional components of learning outdoors.

Procedure.

The material was developed with a proposal and subsequent grant obtained from the Four Corners Regional Development Commission for a demonstration program. Research, goals and objectives were developed or selected by the staff as (1) to provide the student with basic information so he may better understand the total environment, (2) to help the individual student develop a concern for environmental problems, and (3) to provide the student with information necessary for him to play an effective role in solving environmental problems. Teachers in surrounding school districts selected concepts from Roth's list of 111 environmental concepts to add input toward activity planning. Measurable behavioral objectives were developed to measure student achievement.

A representative group of 16 boys and 16 girls was selected on the basis of previous science courses and an essay explaining why they would like to attend. Three extensive field trips were conducted over a two-week period. Each expedition focused on a particular concept.

Student achievement of objectives was learned using taped interviews before and after the experience, a fifty question multiple choice test on principles, and a questionnaire mailed to parents. High School students from Monticello, Utah who corresponded in age, sex, and academic background served as a control group for the multiple choice test.

Results and Conclusions

There was a significant difference in the post-test scores of students participating in the program. Test scores in the control group did not change significantly. Questions designed to show attitudinal change of participants showed no significant change; however, the staff and parents felt there was a concern and willingness to get involved in solving environmental problems. Although not all objectives were fully met, changes and additions were indicated.

Roger Moellering

A COMPARISON OF ATTITUDES TOWARD PUBLIC CAMPING IN STATE AND FEDERAL OUTDOOR RECREATION AREAS

University Microfilms
Order Number: 70-19813

By: John Morgon King, Jr.
Indiana University
1970

Purpose

King wished to compare and analyze the attitudes of state and federal campground administrators, private campground operators, and the camping public toward the prevailing issues in campground development and operation.

Procedure

In 1965, King used an open end survey to learn of the issues and problems prevailing in family camping. His opinionnaire was distributed to 210 individuals knowledgeable in the field of camping. Reported issues were categorized and listed. A total of 137 statements was developed from the list of issues. A jury of recreation and camping authorities rated each statement for pertinence to the study and a refined listing of 100 statements was then distributed to 700 individuals selected to represent the seven populations studied.

Results and Conclusions

Considerable variance in attitudes among the classifications of the study was apparent. Background characteristics of administrators and campers considerably influenced their personal attitudes. Diversity and conflict among agencies in their public campground policies and practices were extensive.

Since respondents were generally undecided in their expressed responses, King recommended the issues involved in these statements be further studied, and that new measurements be made to determine if expressed attitudes had changed.

Kathleen M. Luczynski

AN ANALYSIS OF STATE LAWS AFFECTING THE OPERATION OF CHILDREN'S SUMMER CAMPS IN THE UNITED STATES WITH A SUGGESTED UNIVERSAL LEGISLATIVE PROGRAM

University Microfilm
Order Number: 64-841

By: John Kirk
University of Michigan
1963

Purpose

Kirk combined the suggestions of a jury of camping experts with an analysis of existing laws to develop a hypothetical legislative program. The results were intended for use by camping leaders and legislators for the modification of existing legislation and the establishment of new legislation relating to organized camping.

Procedure

Kirk visited the American Camping Association (ACA) national headquarters to achieve the proper focus for this study. The purpose of his visit was two fold: (a) to review the legislative materials which this organization had collected for each state,and (b) to interview the executive staff members in order to develop an understanding as to the role of state legislation as seen by ACA. Existing legislation was catalogued as to types of legislation, date of passage, and content. Letters were then sent to the appropriate state agencies governing organized camping. The letters requested certain information relating to existing legislation. The specific agencies within each state supplied the primary data and this material was catalogued and filed. To maintain objectivity in the analysis of the various state programs the resident camp standards of ACA were used as fixed criteria against which each state program was evaluated.

Results and Conclusions

As a result of Kirk's analytical survey of camp legislation in the fifty states he developed The Children's Camp Act which is suggested as a guide to state legislatures contemplating legislation intended to protect children while engaging in a summer camp experience.

James R. Koinis

SCIENCE EDUCATION IN THE NATIONAL PARKS OF THE UNITED STATES: A DESCRIPTIVE STUDY OF THE DEVELOPMENT OF SCIENCE EDUCATION PROGRAMS AND FACILITIES BY THE NATIONAL PARK SERVICE AND THE RELATIONSHIP OF THESE TO THE ADVENT OF NATURE STUDY AND CONSERVATION EDUCATION IN AMERICA

University Microfilms
Order Number: 73-30,086

By: Marcus Kraus
New York University
1973

Purpose

Kraus wanted to: (1) trace and identify the origin and content of programs in science education in the National Park System, (2) trace the development of Nature Study and Conservation Education and their influence in shaping of Park Service educational programs, and (3) make recommendations for future educational programs of the Park Service.

Procedure

Kraus used documentary analysis and historical research methods to gather data. Information was collected from: (1) analysis of landmark reports, conferences and U.S. National Archives records, (2) unstructured interviews with individuals expert in natural science education.

To substantiate the accuracy and pertinency of data gathered, Kraus had a panel of Park Service experts review the text material of the dissertation. The Socio-historic descriptive technique and the "Fan Search" or cross-reference technique of documentary analysis were used to present and evaluate information used.

Results and Conclusions

The National Park Service educational programs have been influenced by: (1) the early philosophies and practices of Nature Study, (2) the conservation and environmental/ecological movements, (3) the influence of conservationists, naturalists and Park-oriented national organizations, and (4) the increase in American population and the changes in life styles.

The educational program has changed from one centered on the presentation of factual, content-oriented material to one centered on environmental/ecological concepts with broad application.

Kraus recommended that the Park Service: (1) research the effectiveness of their educational programs, (2) utilize outdoor education camps to train personnel, (3) frequently review programs and (4) develop in the visiting public an environmental literacy.

John Black

THE EFFECTIVENESS OF FIELD TRIPS IN THE TEACHING OF GENERAL BOTANY

University Microfilm
Order Number: 60-1921

By: Sybil Marie Kuhnen
New York University
1960

Purpose

This study was undertaken to determine whether the field trip was superior to the traditional laboratory in general college botany, (1) in gain in ability to apply principles, (2) increase in interest, and (3) gain in knowledge.

Procedure

A checklist was developed summarizing the purposes and mechanics of field trips as applied to instruction in botany. Subjects participating in the experiment were college freshman or sophomores majoring in science, or minoring in botany, and taking botany for the first time. A rotation technique was used whereby each group was experimental for three weeks and control for three weeks. Pre and post tests for information, and application of principles were given. A questionnaire was given to determine increase in interest.

Results and Conclusions

Two of the six test-retest F scores for the information tests showed a significant increase. Both favored the control group. Six of the twelve t-scores (test-retest) showed a significant gain favoring the laboratory group.

Neither the laboratory or the field trip seemed to contribute significantly to the ability to apply principles. Students felt that field trips provided greater enjoyment and improved ability to observe, and made learning easier. Both techniques were felt to be equally influential in increasing knowledge and offering new experiences.

ENVIRONMENTAL VALUE ORIENTATIONS AND METHODS OF TEACHING ENVIRONMENTAL VALUES IN THE ELEMENTARY SCHOOL

University Microfilms
Order Number: 76-27,658

By: Peter Ellsworth Larson
University of Oregon
1976

Purpose

Larson wished to collect empirical data useful in designing an environmental education curriculum for the Kenai Peninsula Borough Schools in Alaska. He wished to assess the environmental values presently held by various groups and the opinions of these groups concerning how environmental values should be taught in the schools.

Procedure

This study was conducted with a random sample of 27 sixth graders from North Kenai Elementary School, Kenai Elementary School and Soldotna Junior High School of the Kenai-Soldotna area in Alaska. One parent for each student (14 male and 13 female) constituted the parent sample. The students' teachers, (N=12) made up the teacher sample for this study.

A revised version of the "Variations in Value Orientations Schedule" was one of the testing instruments used to quantify the environmental value orientations of the parents, teachers, and the students. The second instrument used was "Teaching Environmental Values Inventory", developed by Larson, to determine the parents' and teachers' views of whether environmental values should be taught and the approaches to teaching the environmental values they would recommend. The data for this study were collected through interviews in the respondents' homes.

Results and Conclusions

Larson found: (1) the students hold environmental value orientations which are different from those held by their parents or teachers (the parents hoped their children would hold the same environmental value orientations as they do): (2) the students showed a preference for the Subjugation-to-nature environmental value orientations, whereas the parents and teachers showed a preference for the Mastery-over-nature environmental value orientations; (3) the students have not matured enough to be aware of factors that would contribute to one holding a value of being Master-over-nature, so many hypotheses were rejected because of this, and (4) the teachers tend to teach their own environmental value orientations.

Melode Borell

A STUDY OF EXPRESSED ATTITUDES OF PROSPECTIVE TEACHERS, TAKING PART IN PRACTICAL CONSERVATION ACTIVITIES

University Microfilms
Order Number: 60-02609

By: George Milton Laug
Syracuse University
1960

Purpose

The purpose of this study was to determine possible changes in expressed attitudes of the students toward conservation. Laug compared the attitude changes of those students having field conservation experiences to those having only classroom instruction on conservation.

Procedure

Laug's experiment was conducted at State University of New York College for Teachers at Buffalo, in the spring of 1958. Twenty-nine General Biology sections, for the most part freshmen, were divided into three groups. Comparability of the groups' expressed attitudes toward conservation was indicated by an attitude scale pre-test at the start of the conservation unit. The control group had a higher mean attitude score than the experimental group.

Two experimental groups had direct conservation experiences at the college camp in Franklin, N.Y., either as a one-day field trip or a two-day overnight. The control group had no field experiences but had the classroom type of conservation education. Following the conservation unit a attitude scale post-test was administered.

Results and Conclusions

Field experiences were shown to improve attitude scores above those of students who did not have field experiences. The overnight conservation experience improves the expressed attitude mean score above that of the day-trip experience.

Kathleen M. Luczynski

THE DEVELOPMENT AND EVALUATION OF AN ELEMENTARY ENVIRONMENTAL ATTITUDES PROGRAM

University Microfilms
Order Number: 74-5274

By: Sylvia Gillespie Leith
University of Texas, Austin
1973

Purpose

The development of a program design for teaching an environmental education program that will help effect changes in students' attitudes toward the environment was the major purpose of this study. A second purpose was to design an effective program for teaching pre-service teachers to develop their own environmental education programs.

Procedure

Subjects in this study were student teachers at the University of Manitoba and the schools where they were experiencing their student teaching practicum. Half of the student teachers would teach the newly designed program to children while the others would not teach the *Elementary Environment Attitudes Program*. Evaluation was by pre-test and post-test of the environmental *Semantic Environmental Concern Inventory*.

Results and Conclusions

Some attitudes were changed in both the children in the classes and the student teachers themselves. No significant differences were found from use of the *Environmental Attitude Programs* over other teaching methods. The changes seemed to vary with the topics studied, the school the child attended, and the class in which the child was enrolled rather than the specific environmental program.

A RATIONALE AND MODEL FOR A COMPREHENSIVE INTERDISCIPLINARY CURRICULUM IN ENVIRONMENTAL EDUCATION FOR GRADES K-12

University Microfilms
Order Number: 76-10,261

By: John H. Loret
University of Connecticut
1975

Purpose

To establish a rationale for public school environmental education and to develop an interdisciplinary model was one purpose of this study. An adaptable model for any grade level and any population setting using existing staff was a secondary purpose.

Procedure

Through a search of the literature and an interview survey of recognized scholars in environmental education, a series of questions was developed to aid in establishing a model of interdisciplinary work in environmental studies. A model was developed that contained: (1) forces responsible for the origin of environments, (2) prehistoric or archaeologic components of man's use of the environment, (3) historic man and the exploration and exploitation of the environment, (4) current environmental imbalance and hazards, and (5) suggested methods of meeting the environmental crisis in the future. The completed model was submitted to the jury of scholars for evaluation.

Results and Conclusions

There seems to be a strong need for including environmental education in the school curriculum. Environmental education is best conceived as a process utilizing an interdisciplinary approach. A workable model can be developed from the basic content and structure of present disciplines that is applicable to all levels from K-12 grade.

A CONDITIONAL LOGIT ANALYSIS OF THE DEMAND FOR OUTDOOR RECREATION

University Microfilms
Order Number: 75-22,326

By: Sven Anders Goran Lundin,
University of
California 1975

Purpose

Lundin attempted to add to the methodological framework of studying the demand for outdoor recreation and to provide a framework for developing comprehensive regional recreational forecasting models.

Procedure

Lundin attempted to illustrate, construct, and evaluate a set of behavioral choice models representing the underlying structure of a recreationist's hierarchical decision making process, that could be integrated into a consistent overall demand model. Five models representing an individual's assumed decision making process were estimated along with three surveys, the 1960, 1965, and the 1972 National Recreation Survey (NRS). The three surveys were evaluated and compared using the following characteristics: (1) socio-economic characteristics, (2) origin-resource characteristics, (3) resource characteristics, and (4) occupancy days.

Results and Conclusions

The empirical analysis indicated an overall consistency between results obtained in this study and previous empirical studies. This study attempted for the first time to model the interdependent hierarchical choice situations a potential recreationist faces in such a way that the separate individual choice models can be integrated into a consistent overall demand. It is believed that the strength of the modelling effort lies in its underlying logic and the fact that its theoretical foundation is specified in detail.

Scott Rigsbee

GROWTH OF ENVIRONMENTAL AWARENESS IN CONNECTICUT AND THE CURRICULUM RESPONSE IN PUBLIC SECONDARY SCHOOLS, 1950-1970

University Microfilms
Order Number: 74-22

By: Francis Peter Lynch
University of Connecticut
1973

Purpose

Lynch's study had two purposes. The first was to decide which events and developments helped to create an attitude of public environmental awareness in Connecticut during 1950-1970 and which led to an increase in that awareness. The second was to examine curriculum response of the State Board of Education and the attitudes of selected high school teachers concerning environmental education topics in the curriculum.

Procedure

Lynch's study covered many aspects of environmental activity in the State of Connecticut. First, was the creation, development, and achievement of private conservation and other organizations and the effect they had on public awareness of environmental problems. Second, he traced the development of the state governmental agencies designed to protect the environment. This had to do with legislation and formation of task force groups set up by the state government. Third, was a study of "Editorials" and "Letters to the Editors" in two large Hartford, Connecticut, newspapers. This was to provide an indication of a growing awareness and concern for environmental problems and issues.

Lynch examined the curriculum actions taken by the Connecticut State Board of Education to show the increase in awareness of conservation and environmental education. Guides and bulletins from the state were reviewed. A study of teacher environmental curriculum attitudes was done using a survey sent to selected high school social studies and science teachers. The attitudes and the positions about the teacher's role in environmental education was scored using a Likert-type Scale.

Results and Conclusions

Lynch found that during 1950-1970 there was an increase in the number and membership of private conservation organizations. Much reform in the legislative acts of Connecticut toward the preservation of natural resources was noted. An increase in environmental related "Editorials" and "Letters to the Editors" was noted. Task forces brought to light many growing problems and concerns. Curriculum development and teacher attitudes showed a gain toward the need for environmental education in all Connecticut schools.

Sandra Gunderson

AN EVALUATION OF PRIMARY LEVEL ENVIRONMENTAL EDUCATION MODULES UPON THE ATTITUDES OF SEVEN YEAR OLDS

University Microfilms
Order Number: 76-2244

By: Sr. Ann Margaret McCarthy
University of Georgia
1975

Purpose

The purpose of this study was to determine if:

1. Students who have been taught materials developed by the Primary Environmental Education Project will show more positive attitudes toward their environment than those who have not.

2. The attitudes of girls toward the environment is more positive than the boys.

3. Positive environmental attitudes are a function of aptitude as assessed by reading ability.

Procedure

1. A sample of 207 randomly chosen seven-year old children was selected from four south-western city schools in Grove City, Ohio. The samples were divided into two groups, a treatment group (T_1) and a control group (T_2).

2. The treatment group (T_1) participated in a 13 week unit of study on pollution including solid waste disposal, water pollution and air pollution.

3. The control group (T_2) participated in a regular social studies unit which contained no environmental topics during the 13 weeks.

4. Prior to the treatment, each group was given the Gates - MacGinitie Reading Test to determine reading ability.

5. At the end of the instruction period a post-test of environmental attitudes was administered to both groups.

Results and Conclusions

1. The treatment group scored significantly higher on the post-test of attitudes than the control group.

2. No significant differences in attitude scores were found between the boys and girls.

3. Reading test scores were found to have no relationship to the attitude scores.

4. Sr. McCarthy concluded that the pollution study alone was effective in bringing about a more positive attitude toward the environment, regardless of sex and/or reading ability.

Gail Abrams

A THEORETICAL GUIDE FOR PLANNING COMMUNITY OUTDOOR PHYSICAL EDUCATION AND RECREATION FACILITIES

University Microfilms
Order Number: 75-9922

By: James Peter McFarland
University of Alabama
1974

Purpose

McFarland wished to provide recreation and park administrators, educators and other community leaders with a common method for planning community outdoor physical education and recreation facilities.

Procedure

The procedure for obtaining the data for this theoretical study came from reviewing the methods described in the available literature for planning outdoor physical education and recreation facilities.

The treatment of the data was by the collaborative and integrative method, using secondary data, bulletins, texts and library searches. These data were presented in the form of a guide with devices and procedures for planning community outdoor physical education and recreation facilities.

Results and Conclusions

The following conclusions came from the study: (1) in order to plan for community outdoor physical education and recreation facilities, a decision making process must be initiated; (2) a planning process must be adopted; (3) the planning process should involve as many community people as possible and as many outside consultants as can be afforded; (4) it is not necessary for the planners to be experts in all areas of planning, although it is greatly desired; (5) through the use of research techniques for investigation, a more orderly and informative planning process can be established; (6) programs should be determined before facilities are planned, and they should be in accord with the goals of the community; (7) outdoor physical education facilities are usually maintained in accordance with the conditions of the rest of the community; (8) public programs and facilities should not be based on ability to pay; and (9) facilities should be planned to meet the requirements of the program.

Melode Borell

AN INNOVATIVE ENVIRONMENTAL SCIENCE EDUCATION PROGRAM FOR SECONDARY SCHOOL TEACHERS

University Microfilms
Order Number: 73-25,162

By: Harold J. McKenna
Columbia University
1973

Purpose

McKenna wanted to develop, implement and evaluate the effects of an Environmental Science Education Program, by using a model course in Human Ecology.

Procedure

McKenna's course was taught in the fall semester of 1971 to secondary level science teachers, at the City College of New York. Two methods were used to learn the effects of the special problem focused approach of the Human Ecology course upon the teachers.

The first was the comparison of responses to an activity questionnaire given at the beginning of the course and again at the end of the course. The second method was to observe nine teachers, after the completion of the course, during the spring semester of 1972.

The instruments were to learn the extent to which:

1. Student involvement in various activities could be determined as a result of having taken the course.
2. Student use of seven identified teaching methods could be observed.
3. Acquisition of basic concepts in environmental science education could be observed.

Results and Conclusions

The study showed that the teachers, (1) could use major concepts from the environmental education course, (2) could incorporate methodology developed in the course into their own teaching, and (3) did become more actively involved in nine identified activities as a result of the special training in the course.

Kathleen M. Luczynski

THE DEVELOPMENT OF A CONCEPTUAL MODEL FOR CONSTRUCTION OF A MULTIDISCIPLINARY K-12 ENVIRONMENTAL EDUCATION PROGRAM

University Microfilms
Order Number: 77-12,220

By: Michael Allen Magnoli
University of Alabama
1976

Purpose

This study was designed to develop a conceptual model for use by a school system in developing an environmental education program K-12, The goal was a model that:

a. Contained sufficient flexibility to allow for local needs and conditions, and

b. Provided for maximum use of local physical, fiscal and human resources.

Procedure

A search was made of the literature to examine models developed previously in environmental education program planning and to identify the factors appearing to have an impact on environmental education program development. An analysis was made of these models, and a program developed and used.

Results and Conclusions

A conceptual model for developing a K-12 multidisciplinary environmental education program was developed. This model was further expanded into a process during its implementation in a case study. It was believed that this model has practical application at the local school level.

Furthermore, it was believed that the use of this conceptual model could provide for consistent program planning and could facilitate common instrumentation and communication between school systems.

It was concluded that the model used for planning environmental education programs must, (a) be sufficiently flexible to accommodate local organizational and political considerations as well as locally defined needs, and (b) anticipate major problems and concerns that are universally applicable to environmental education.

A STUDY OF PROFESSIONAL RECOMMENDATIONS FOR CURRICULAR GUIDELINES OF ENVIRONMENTAL INTERPRETERS

University Microfilms
Order Number: 73-3552

By: Benjamin Donald Mahaffey
Texas A & M University
1972

Purpose

This research was designed to collect guideline information useful in designing a relevant curriculum for Environmental Interpreters based on the needs as expressed by professionals in the field.

Procedure

Mahaffey used two instruments and collected data on five proficiency or skill areas within the profession of Environmental Interpretation.

The first instrument titled "Survey of Selected Colleges and Universities With Curricula Available for the Education of Interpretive Naturalists or Environmental Interpreters" was mailed to 49 institutions believed to have curricula or educational programs. The second instrument titled "A Study of Selected Knowledge and Proficiencies Desired for Environmental Interpretation" was mailed to 500 (34% of defined population) randomly selected professionals associated with environmental interpretation.

Results and Conclusions

(1) Information was collected and analyzed on the personal-professional characteristics and philosophies of individuals working as Environmental Interpreters. (2) Two curricula preparing environmental interpreters were identified. (3) Ten proficiencies or skills were measured for magnitude of usefulness. (4) Public speaking, writing, and audiovisual equipment operation were declared essential. (5) General subject matter areas were identified and relative usefulness of specific courses within the general subject matter areas were determined by priority ranking. (6) Percentages of each general subject matter area were computed and compared to the Association of Interpretive Naturalist's recommendations, existing curricula and the other curricular implications identified in the study, and (7) Recommendations and applications of the study were given for future research.

Kathleen M. Luczynski

A COMPARISON OF THE EFFECTIVENESS OF GROUP CAMPING EXPERIENCES ON CHANGE OF SELF-CONCEPT FOR CAMPERS WITH PROFESSIONAL AND NON-PROFESSIONAL GROUP LEADERS

University Microfilms
Order Number: 72-2,143

By: Reita Jean Marks
West Virginia University
1971

Purpose

The purpose was to compare the effectiveness of professional and non-professional group leaders in influencing change in self-concept for seventh and eighth graders participating in a camping situation designed to increase self-understanding. Marks also wanted to determine the role of camp experiences in facilitating attitude change.

Procedure

Changes in Self-Concept and Concept of Ideal Self were measured by an adapted form of Bills'Index of Adjustment and Values and Personal Data Questionnaire. Variables considered with Self-Concept, Concept of Ideal-Self, and the Discrepancy score were residence, sex, and 4-H membership. 243 rural West Virginia seventh and eighth grade subjects answered a pre-test, post-test, and 10 weeks later a post-post-test. The weekend experiences featured five group discussions and two assemblies dealing with understanding of self. Group A had professional leaders while group B had non-professionals in a succeeding weekend.

Results and Conclusions

Both professional and non-professional group leaders were similarly effective in helping to bring about concept change in a camping situation designed to enhance self - understanding. Greatest attitude change, as indicated by lowered Discrepancy scores, came between pre-test and post-test with post-post-testing showing concept change continuing after the camp experience. Residence and sex had an effect on self-concept prior to but not following the weekend camp. The camp experiences designed to enhance self-concept were also judged to be effective as indicated by the lower Discrepancy scores.

Beverly Kruse

THE DEVELOPMENT AND FIELD TEST OF AN INSTRUMENT TO MEASURE SECONDARY STUDENTS' ATTITUDES TOWARD SELECTED ENVIRONMENTAL EDUCATION CONCEPTS

University Microfilms
Order Number: 72-32056

By: Bob Marlett
Texas Tech University
1972

Purpose

1. To find a valid and reliable instrument to measure the attitudes of secondary students toward selected environmental management concepts.

2. To administer the instrument to a sample population of secondary students to determine their normative scores and to examine the data as related to the ratings of the same concepts by a national panel of scholars.

3. To examine the relationships between attitude scores of the subgroups participating in the survey.

Procedure

1. A list of environmental concepts selected from a study by Roth was sent to a panel of 80 University of Wisconsin scholars in 40 disciplines. The scholars rated each concept as to its importance to environmental management.

2. The concepts accepted by 75% of the total group were sent to a national panel of scholars and a list of 111 concepts was accepted.

3. These concepts were presented to groups of ninth and tenth graders to identify those that caused reading and understanding problems.

4. A revised list was made taking the student evaluations into consideration.

5. The list of statements was presented to a sample of 275 secondary students in 8 regions of the country. The survey included 60 statements of which the students were asked to choose whether they strongly agreed, agreed, were undecided, disagreed or strongly disagreed with each statement.

6. The results of this survey were then compared to the ratings given for each statement by the panel of scholars.

Results and Conclusions

1. The instrument developed was found to be a valid and reliable instrument for measuring attitudes of secondary students toward selected environmental concepts.

2. The scores from the survey showed a positive relationship to the values of matching concepts by a national panel of scholars.

3. No significant differences of attitude scores were found between students grouped by their zones of residence, declared background environments, age or sex.

Gail Abrams

THE EFFECT OF OUTWARD BOUND ON SENSE OF COMPETENCE

University Microfilms
Order Number: 74-11,326

By: Robert Arthur Matthai
Harvard University
1973

Purpose

Matthai wished to know if an Outward Bound Course (a 3-4 week course of water or mountain-craft, which is carried out in the wilderness with mostly physical fitness experiences) could improve an individual's competence in self-reliance and sense of responsibility.

Procedure

For his study Matthai selected a group of 78 students who took part in the Outward Bound Course on Hurricane Island, Maine, the summer of 1969. (This course emphasizes water-craft skills.) To each participant he administered a questionnaire of items dealing with Scholastic Sense of Competence and a General Sense of Competence. The Scholastic Questionnaire consisted of a ten-item self-ranking scale, while the General Questionnaire consisted of a nine-item scale. The questionnaire was administered as both a pre-and post-test, the post-test coming shortly after the course was taken.

Results and Conclusions

Matthai used the techniques of multiple analysis of variance and correlation to reach his results. He found that the participants did sense a significant increase in their competencies of scholastic, outdoor, and general skill. These sense of competencies had nothing to do with the participants' backgrounds or experiences. The athletic ability affected the gains in General and Outdoor Sense of Competencies, with participants who rated themselves low in athletic ability on the pre-test showing the highest gains on the post-test. Athletic ability did not affect Scholastic Sense of Competence.

Matthai also concluded that while Outward Bound seems well-organized; students did suggest that changes be made to develop more in the way of nature appreciation, sense of competence, and learning to help others.

Jeanne Kuhn

A CONCEPTUAL FRAMEWORK FOR ENVIRONMENTAL EDUCATION ADAPTED TO THE PHILIPPINE ENVIRONMENT

University Microfilms
Order Number: 74-27,452

By: Paz Concepcion-Medel
Michigan State University
1974

Purpose

The purpose was to develop an ecologically oriented science curriculum for Philippine schools. The four goals of this study dealt with: (1) Environmental education and guidelines for development and implementation, (2) Concepts and processes in environmental education for integration into existing science curriculum, (3) Teaching strategies for environmental literacy and ecological conscience, and (4) Guidelines for in-service education of teachers.

Procedure

Concepcion-Medel's research sources were: (1) United Nations documents, (2) publications from U.S. Departments of HEW, Agriculture and Natural Resources; State of Michigan; Michigan State University; and ERIC, (3) selected literature concerning environmental education and curriculum development, and (4) articles from the Philippine mass media pertaining to their environmental problems. From these sources a descriptive study was developed integrating the goals stated in the purpose.

Results and Conclusions

Concepcion-Medel found that curriculum materials and designs for environmental education emphasize the selection and organization of ecological concepts through various subject-matter approaches:

1. Emphasize science as a base for learning environmental studies.
2. The need for inquiry and problem solving methods.
3. Relating the subjects in concept development.
4. Integration of environmental concepts at all grade levels.
5. Usage of school sites and community resources for learning.
6. Emphasize value education.
7. The application of the media in learning activities.

James Burns

THE DEVELOPMENT AND TRY-OUT OF A SET OF CRITERIA FOR THE EVALUATION AND IMPROVEMENT OF A CONSERVATION EDUCATION PROGRAM IN AN ELEMENTARY SCHOOL

University Microfilms
Order Number: 58-7768

By: Clarence J. Messner
University of Michigan
1958

Purpose

Messner wished to develop a set of criteria that might be used to evaluate and improve an elementary level conservation education program. His study was designed to improve conservation programs in elementary schools in Michigan and other states.

Procedure

Several activities and sources were used to develop a list of twenty-nine criteria to evaluate a conservation education program. A selected jury of conservation educators evaluated the list of criteria to develop a checklist. This checklist represented about three hundred statements of philosophy and actual practice in conservation education. The checklist (with a five point rating scale) was used in six elementary schools in Michigan.

Results and Conclusions

The checklist was found to be a valuable tool for evaluating and improving conservation education programs. Messner found that a set of clearly defined goals must be established before beginning the conservation program.

Conservation programs are not easily evaluated because they are often integrated into several areas of the curriculum. These programs may best be implemented in the context of the existing science and social studies curriculum. The results of a good conservation education program can be observed only after several years of program use.

It is vital that the education for the wise use of our natural resources and environment be effectively implemented in our school systems, Messner concluded. The checklist in this study represents one way of evaluating and improving a conservation education program to help promote environmental awareness.

Michael J. Fager

LUTHERAN CHURCH CAMPING A THEOLOGICAL PERSPECTIVE

University Microfilms
Order Number: 72-19,523

By: Lee Mathers Miller
Columbia University
1972

Purpose

Due to a lack or gap in church camping philosophy, Miller addresses himself to the problem of developing a rational for church camping in which Biblical principles and church philosophy are integrated. The author includes in the philosophy traditional camping experiences and illustrative theology. Limitations included: (1) the analysis being restricted to the theology of the Lutheran Church and, (2) the study being done only in New York State.

Procedure

An examination was made of the situation in camping in the Upper New York Synod of the Lutheran Church and an overview was taken of the Lutheran Church nationally. This information was taken from minutes of meetings, reports from consultations and personal interviews.

Findings were written up for use in leadership training of camp staff. Primarily this would be in the form of an instruction booklet in camping.

Results and Conclusions

Overall, church camping is recommended as a God and community relationship. Spiritual values should be foremost in church camping and they should be an integral part of all phases of camping, Miller concluded.

Goal planning was recommended as an essential part of setting up camp programs in the church. One specific tool usually left out by church camps was a tool to assess camping from the campers viewpoint. Use of the instruction booklet in seminar form for camp or church staff is recommended as a way to implement goals established in this study.

Joel Van Der Puy

THE INFLUENCE OF A RESIDENT OUTDOOR PROGRAM ON THE ATTITUDES OF SIXTH GRADE STUDENTS TOWARD OUTDOOR CONCEPTS USING TWO TEACHING METHODS

University Microfilms
Order Number: 74-16043

By: Robert E. Millward
Pennsylvania State University
1973

Purpose

The purpose of this study was to determine the short and long range effects of a resident outdoor program upon the development of positive attitudes toward outdoor concepts in sixth grade students using two different teaching methods.

Procedure

1. 300 sixth-grade students were selected from the Brownsville Area School District, Brownsville, Pennsylvania. Both teachers and students were randomly assigned to experimental and control groups.

2. All teachers were trained in outdoor teaching strategies prior to the treatment. Those teachers assigned to the experimental group were also instructed in attitudinal strategies and theories.

3. Students were administered Form A of the Millward-Ginter Outdoor Attitude Inventory (MGOAI) one week prior to camp. One week after returning home, Form B of the MGOAI was administered to each child. Form A was administered again 3 months after camp (post post-test).

4. Data were analyzed to determine whether grade average, sex and the week the student attended camp had any effect on the attitude scores.

Results and Conclusions

1. There were no significant differences in attitude scores between the experimental and control groups. There were, however, significant overall differences in attitudes, in the positive direction, between the pre and post and post post-tests in both groups.

2. A student's sex was not found to affect the attitude scores.

3. Students with above average grades had significantly higher attitude scores than average and below average students; the students with average grades scored significantly higher than below average students. However, there were no significant differences in scores of all three groups between pre and post and post post-tests.

4. The week in which a student attended the resident camp did not seem to affect his attitude toward outdoor concepts.

5. Though two teaching methods were taught prior to the study, teachers in both groups tended to use the same method. Due to this, data on effects of the two teaching methods could not be obtained.

6. An overall analysis of the attitude inventory indicated that student attitudes in both groups tended to become more positive as a result of the resident camping program.

Gail Abrams

A PLAN FOR THE ORGANIZATION OF CAMPS AS AN INTEGRAL PART OF THE PUBLIC SCHOOL SYSTEM OF THE CITY OF NEW YORK

University Microfilms
Order Number:

By: Harriet Brown Moore
Columbia University
Teachers College 1943

Purpose

The intent of this study was to examine the philosophy, aims, objectives and criteria of democratic education and their application to educational camping.

Procedure

Educational camping as it existed in the United States in the 1940's was surveyed by means of a questionnaire and personal visits. A plan for organizing, constructing and setting up camps as part of the New York City Public School System was then developed.

Results and Conclusions

The author recommended that five year-round camps, each named after one of the boroughs in the City of New York be constructed. It was suggested that the experience be geared to fifth grade children. Each camp should accommodate 96 children and should be staffed with competent professionals whose qualifications and salaries would be comparable with regular school staff. The camps would be operated by the Board of Education.

OUTDOOR EDUCATION AS SEEN THROUGH A DELPHI SURVEY OF SELECTED GROUPS OF EXPERTS IN THE PROVINCE OF QUEBEC, CANADA, U.S.A., AND OVERSEAS AND IMPLICATIONS FOR THE OUTDOOR EDUCATION CURRICULUM AT LAVAL UNIVERSITY, QUEBEC

University Microfilms	By: Georges-Andre Nadeau
Order Number: 77-5857	Michigan State University
	1976

Purpose

Nadeau wanted to study the perceptions of outdoor education leaders in Canada and the United States concerning the outdoor education movement and to subsequently make recommendations about an outdoor education curriculum at Laval University, Quebec. He wanted to know what experts thought about the many aspects of outdoor education.

Procedure

A Delphi method was used to gain a concensus on some 97 statements about outdoor education that had been drawn from the literature, the researchers own experience, and Michigan State University faculty members.

These statements were submitted to a small group of experts in each of four samples, two in Canada, one in the United States, and one overseas. The experts reviewed the statements and commented.

The statements were then reviewed in light of the expert's comments and revised. They were then returned to the experts for additional comment and modification of positions - after having heard the positions and views of the other respondents.

The next phase of the study aimed at a series of statements on which there was consensus or agreement by the "experts." These statements were grouped (a) definitions of outdoor education, (b) objectives of outdoor education, (c) social and cultural environment, (d) outdoor education and learning, and (e) teacher education.

Results and Conclusions

Nadeau found the practice of outdoor education in Quebec to be a blending of the two (a) Outdoor Education is education for and about the outdoors, and (b) Outdoor Education is learning through the outdoors - a process for curriculum enrichment in which the outdoors is a setting for achieving educational objectives.

Nadeau also arrived at a set of recommendations for the outdoor education program at Laval University in Quebec.

A COMPARATIVE STUDY OF THE EFFECTS OF DIFFERENT INSTRUCTIONAL TREATMENTS ON ELEMENTARY PUPILS' ATTITUDES TOWARD THE URBAN ENVIRONMENT

University Microfilms
Order Number: 75-1815

By: Nancy Rae Noeske
University of Maryland
1974

Purpose

The researcher wanted to learn the effect of selected instructional experiences on the attitudes of fifth grade children in the Milwaukee Public Schools toward the urban environment of today and the future.

Procedure

Seventy-two classes (2,020 pupils) were randomly selected from three geographic areas: (1) the central city, (2) the mid-section of the city, and (3) the suburban-setting. These classes were randomly assigned to the four treatment groups of: (1) field trips, (2) slide/tape presentations, (3) field trips and slide tapes, and (4) no treatment at all.

The field trips (real treatments) used in the study were designed to provide the children with a three-hour encounter with the natural and man-made urban environment to expand their awareness of the local environment and their relationship to it. They were designed to instill a positive attitude towards the city. The half-hour slide presentation was designed to serve as a simulation of the field treatment.

The attitudes were measured by two-parts of a semantic differential following the treatment. Data were analyzed using analysis of variance in a 2x3x3 factorial design. Twenty-two null hypothesis were formed.

Results and Conclusions

Noeske found that the treatment had no effect on the pupils attitudes towards the city of today. Noeske did find that the field trips had a greater effect on the attitudes toward the city of the future. This optimism was especially evident within the central city schools. The researcher stated that this supported the assumption that pupils living in the urban environment have more reason to be optimistic since any perceived improvement in conditions resulting from treatments will directly improve their future life.

Ken Wenzel

DOCUMENTATION AND ANALYSIS OF THE DEVELOPMENT OF THE CAMP GREENOUGH ENVIRONMENTAL EDUCATION CENTER, AN ALTERNATIVE PUBLIC SCHOOL AT YARMOUTH, MASSACHUSETTS

University Microfilms	By: Thomas Francis Paquin
Order Number: 73-22, 808	University of Massachusetts
	1973

Purpose

Paquin's study was to give a step by step model for designing and implementing an environmentally-oriented alternative high school program.

Procedure

Paquin's alternative program was located at Camp Greenough, a camp owned and operated by the Boy Scouts of America. The project was to be a joint venture between the National Alternative Schools Program of the School of Education at the University of Massachusetts and the Dennis/ Yarmouth Regional School District.

The program was designed in two parts. Part I was the alternative high school program for fifteen students chosen from grades 10-12 attending Dennis/Yarmouth Regional High School. Part II consisted of an experiential teacher training program operated through the School of Education at the University of Massachusetts for college students.

Paquin provides very detailed plans for developing a program of this type from its conception until just prior to its implementation. The program was to be in two phases. Phase I was the first three years when outside funding was a necessity. Phase II was the establishment of fees from school districts and groups using the facilities and its available naturalists.

Results and Conclusions

The alternative program at Camp Greenough was never implemented. After thorough study, detailed objectives and goals, and enthusiastic support from agencies and individuals, the Dennis/Yarmouth Regional School District would not match funds with the National Alternative Schools Program. Therefore, just prior to implementation the program was dropped. The effectiveness of the program could not be evaluated.

Sandra Gunderson

GUIDELINES FOR THE CONVERSION OF AN EXISTING RESIDENT CAMP TO AN OUTDOOR EDUCATION CENTER

University Microfilms
Order Number: 76-12,611

By: Doris V. Parkman
New York University
1975

Purpose

Parkman developed a set of guidelines for the conversion of an existing camp facility to an outdoor education center. The study included a survey of the campsite facilities and program and development of recommendations for implementing an educational program.

Procedure

Camp Wendy (a resident Girl Scout camp) in Wallkill, New York was used for the study. A checklist was sent to twenty experienced educators and the results were used to develop the guidelines for the conversion of Camp Wendy to a year-round outdoor education facility. The major guideline categories included program, site, and staff development for implementation over a ten year period.

Program activities were organized according to the existing school curriculum. A master plan including detailed maps and reports was used in site development. Staff development included a detailed job description as well as recommendations for in-service training programs.

Results and Conclusions

The checklist and established guidelines represent a valuable aid for converting an existing camp to an outdoor education facility. Outdoor education is perhaps best taught in a resident camp where direct experience is possible.

The guidelineswere not intended to be the final answer to camp conversion and development. Rather, the study represents one method that could be used to convert a facility to use it to its fullest educational potential.

A continuous program of evaluation and improvement must be imlemented to insure the development and continuation of an effective program, Parkman concluded.

Michael J. Fager

A STUDY COMPARING OUTDOOR, INDOOR AND OUTDOOR-INDOOR SETTINGS FOR TEACHING SPECIFIC ENVIRONMENTAL EDUCATION OBJECTIVES

University Microfilms
Order Number: 75-29,061

By: Richard Allan Peck
University of North Carolina
at Chapel Hill 1975

Purpose

Peck wanted to determine if students can learn specific environmentally oriented objectives in an outdoor setting more effectively than students can learn those same objectives in an indoor situation or in a combination indoor-outdoor situation.

Procedure

Peck's experiment was conducted with high school biology students from Burke County Public Schools in Burke County, North Carolina, during the 1973-74 school year.

The experimental design consisted of a comparison of three teaching-learning environments; one totally outdoor, one totally indoor and one a combination of indoor and outdoor. Each experimental group and the control group consisted of both males and females. The outdoor group had 13 males and 24 females; the indoor group had 25 males and 30 females; the combination group had 16 males and 15 females and the control group had 47 males and 37 females. The instructional program for the three experimental groups focused on the same objectives, while the control group was not taught those objectives. The control group participated in its normal instructional program between pre-testing and post-testing. All three experimental groups and the control group were pre and post-tested with two tests, "The Environmental Attitude Inventory" and "The Environmental Achievement Test."

Results and Conclusions

In conducting this study, Peck found that: (1) the outdoor classroom can be used as an effective aid in teaching of environmental education; (2) the three experimental approaches were equally as effective with males as with females; (3) and attitudes toward the environment can be changed in a positive direction through educational programs.

Melode Borell

THE IDENTIFICATION OF CERTAIN OUTDOOR ACTIVITIES TO BE INCLUDED IN A COLLEGE PHYSICAL EDUCATION PROGRAM FOR MEN

University Microgilms
Order Number: 58-7433

By: Paul Cornman Ritchie
University of Missouri
1958

Purpose

The purpose of this study was to identify some of the outdoor recreational activities that should be included in a college physical education service program for men.

Procedure

Ritchie used the survey method, involving the use of information check lists, to gather data on student participation, interest, and sources of learning for the outdoor recreational activities. Also obtained from the survey were the opinions of a selected professional jury in regard to the desirability of the activities for inclusion in a college program for men.

Check lists were constructed by Ritchie and administered to the two groups: (1) 1,433 male students enrolled in 78 classes of required physical education at the University of Missouri, and (2) 35 experts in physical education from universities and colleges in all regions of the country. The activities listed on the ckeck list were obtained from the Encyclopedia of Sports.

Results and Conclusions

Students who had been high school athletes indicated a greater frequency of participation in the more active types of recreational activities; however, interest was reported near the same level for both athletes and non-athletes. The sources for learning outdoor recreational activities were mainly non-school sources such as friends, youth groups, home, and self. The highest participation was reported in active team games.

The ten activities found to be most worthy of inclusion in a college physical education program for men are (in order): swimming, badminton, golf, handball, outdoor volleyball, softball, touch football, tennis, track, and field events, and fishing.

Michael Welch

TIKVAH: A SPECIAL PROGRAM OF INTEGRATED SUMMER CAMPING AND ITS EFFECTS UPON EMOTIONALLY DISTURBED ADOLESCENTS AND THEIR NORMAL PEERS

University Microfilms
Order Number: 74-15,986

By: Elliott Joseph Rosen
Columbia University
1974

Purpose

Rosen examined the effects of a special program of summer residential camping, called "Tikvak", upon emotionally distressed adolescents and their normal peers in an integrated setting.

Procedure

Rosen's research was conducted in 1972 at Camp Ramah which is located in Palmer, Massachusetts. The subjects for the study were 251 adolescents in two eight-week residential summer camps. The Tikvak population at Camp Ramah consisted of 30 emotionally disturbed adolescents, and a normal New England Camp population of 131 normal adolescents who daily worked with the Tikvak students on a one to one basis. The comparison group consisted of 90 adolescents at Berkshires Camp who were not in contact with the other students at the other camps. The Children's Internal Versus External Test and the Self-Esteem Inventory were administered to the Tikvak population at six different intervals. The Social Report Card was completed by the subject's counselor after one week and again at the end of the program. The Integration Level Report was completed after the first week, at the midpoint, and at the end. After a few weeks into the summer, the normal experimental population was asked to fill out ECHO value cards.

Results and Conclusions

Using an interrupted time-series design it was found that the emotionally disturbed adolescents, as a group, showed a significant rise from pre-camp baseline in self-esteem, locus of control and social competence and that this improvement was sustained for at least three months after the camp season. The improvement could be considered as stable. The hypotheses regarding the normal population were not confirmed; there was no significant change in attitudes on the part of the normal population in either camp, nor were the values espoused by those who worked closely with the special population any different than those who did not.

It is felt that the success of this program points further possibilities for the integration of exceptional adolescents within normal populations.

Scott Rigsbee

A GUIDE FOR THE ORGANIZATION AND ADMINISTRATION OF AN OUTDOOR EDUCATION PROGRAM IN A CAMP SETTING FOR A METROPOLITAN PUBLIC SCHOOL SYSTEM

University Microfilms
Order Number: 62-6512

By: Edward Hifumi Sato
Indiana University
1962

Purpose

Sato wished to determine the desirable organization and administration of a resident outdoor education program. Emphasis was placed on the use of a camp facility by a metropolitan school system.

Procedure

A list of ten major objectives was sent to eight school camping authorities and curriculum specialists for evaluation and rating as to desirability. A mean was established for the desirability rating given each objective. The table of mean values was used as an interpretative scale.

Organizational and administrative factors were then organized to permit a jury of ten authorities in school camping and college professors to rate their desirability on a five point scale. This jury of specialists made several suggestions that were used by Sato to produce the final form of the questionnaire. The final questionnaire was sent to ten camp directors and college professors for rating. A careful analysis of the final questionnaire was made, and several specific recommendations were proposed.

Results and Conclusions

The rated objectives obtained from the questionnaire should provide a valuable guide for a resident camp director. The development of a school camp is perhaps best accomplished by a cooperative effort of several interested segments of the metropolitan school community. A pilot program should be used to facilitate initial program development. The jury of camp directors and college professors also recommended the use of an advisory board to develop specific camp policies. The existing school board should be empowered to provide for staff and site development. It is essential that an ongoing evaluation process be used to improve the camp program, Sato found.

Michael J. Fager

CASE STUDY OF A CONTINUING EDUCATION PROGRAM IN A LEISURE SKILL: THE ARCHERY SEGMENT OF THE OUTDOOR EDUCATION PROJECT OF THE AMERICAN ALLIANCE FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION

University Microfilms Order Number: 74-27,479	By: Fred Joseph Schuette Michigan State University 1974

Purpose

The purpose of this study was to examine and describe the Outdoor Education Project's workshops for developing leaders of instruction in the leisure skill of archery.

Procedure

Data for the study were collected by survey using a questionnaire and telephone interviews. The questionnaire was developed by Schuette, who was serving as Director of the Outdoor Education Project and a research specialist. It was sent to 467 people who had attended the Project's archery workshops from 1969 to 1973.

To balance the subjectivity of the responses from the questionnaire a taped telephone interview with ten educators was conducted to further judge the impact of the Project's archery workshops. They were selected as being the top leaders in the field of archery instruction and because of their knowledge of the goals of the Project's archery program.

Results and Conclusions

The majority of the respondents revealed that as the result of the workshops: (1) additional archery instruction was not sought, (2) archery instruction workshops were conducted, (3) archery programs were or were planned to be expanded, (4) they were better equipped to offer group instruction, and (5) that their programs were greatly improved.

The majority of the respondents in the telephone interview reported that: (1) expanding programs include the Project's method of teaching archery, (2) as the result of the workshops, instructors are more skilled in instruction, and (3) archery programs have improved as the result of the experience of the workshop.

Michael Welch

A STUDY OF THE CURRICULA OF SELECTED HIGH SCHOOL SUMMER MUSIC PROGRAMS AS PRESENTED AT CAMPS OR ON COLLEGE CAMPUSES

University Microfilms
Order Number: 71-5598

By: Herbert Louis Schultz
Columbia University
1970

Purpose

The trends and practices of summer high school music programs seemed to be relatively unknown. Hence, Schultz wished to seek answers to questions like these:

1. What is the role of summer music programs in the music education of students?
2. What are the objectives upon which summer music programs base their curricula?
3. How do summer music programs relate to music education programs in the regular high school?

Schultz believe that a need existed to clarify the objectives of summer music programs and to bring the high school summer music programs and the academic high school year program into closer relationship.

Procedure

Schultz reviewed the literature related to summer music programs and academic high school music programs. He conducted two nation-wide surveys, one concerning summer music programs, and the other of leading music educators active in high school music programs.

Results and Conclusions

Some of the significant findings are:

(a) summer music programs are capable of dealing with individual needs and differences,
(b) music theory is offered by summer music programs more than any other course,
(c) there is an emphasis on performance in summer music programs,
(d) there is a lack of emphasis upon development of aural perception and creative skills.

Schultz developed a number of recommendations for improving summer music programs. In general, they suggested more emphasis on non-performance activities and on using the new developments in music education.

A SURVEY OF THE EFFECTIVENESS OF ENVIRONMENTAL EDUCATION TEACHING METHODS AS RATED BY PUBLIC SCHOOL TEACHERS AND PROFESSORS OF EDUCATION IN ILLINOIS

University Microfilms
Order Number: 76-13,286

By: Karl Eugene Schwaab
Southern Illinois University
1975

Purpose

Schwaab collected and analyzed data pertaining to environmental education methods which would be useful to teachers trying to improve their programs and to college professors trying to improve or establish preservice and/or inservice training in Illinois.

Procedure

A detailed review identified the many methodologies teachers providing environmental education used in Illinois. This was accomplished by reviewing literature and the professional journals from 1970 to 1975. Schwaab then designed a questionnaire to provide data relating to: (1) a means by which educators in Illinois could rate the use and effectiveness of environmental education methods, (2) the present organization of environmental education in public schools and institutions of higher education, (3) what educators believed should be the future organization for preservice environmental education methods training.

Questionnaires were sent to elementary and secondary teachers in public schools and to colleges with teacher education programs. The respondents represented 89 public schools and 41 institutions of higher education.

Results and Conclusions

Teachers in public schools gave the highest rating to methods which involved students as active participants, but these methods were found to be used less by teachers. Field trips or direct experiences with the environment were used extensively by environmental educators. The respondents gave good ratings to the using of resource persons, but the percentage who used such a person was low.

Schwaab found that environmental education programs were integrated in the life science or physical science programs in lower grades and in the higher grades were taught as separate courses. The data indicated the need for preservice training in methods of: (1) preparation, (2) conducting field trips, (3) environmental problem solving, and (4) conducting activities at a resident center. Schwaab found that only one-fourth of the colleges represented required preservice students to study environmental education methods.

Ken Wenzel

A SOCIOMETRIC STUDY OF CHILDREN OF DIFFERENT SOCIOECONOMIC LEVELS IN AN INTERRACIAL, INTERRELIGIOUS CAMP

University Microfilms
Order Number: 72-2,539

By: Blondel E. Senior
University of Georgia
1971

Purpose

The purpose of the study was to examine the acceptance and rejection processes among group members of different racial, religious, and socioeconomic backgrounds. Senior wanted to know the answers to questions like these: (1) what factors influence the group members?, (2) are individuals selected for emotional-supportive roles different from those chosen for task-oriented roles?, and (3) what is the effect of cohesiveness among members of different ethnic groups?

Procedure

A group of 175 boys and girls, ages 8 to 13, consisting of Jews, Negroes, Whites (non-Jews), and Cherokee Indians camping for 2 weeks at Blue Star Camp, Hendersonville, North Carolina, were the subjects used in this study. Sociometric questionnaire pretests and posttests were given to determine degree of attitude change in which the Chi-square test was used to measure level of significance.

Results and Conclusions

A high level of acceptance between groups prevailed. Each group tended to become less ethnocentric with extended interaction periods and minority group members experienced greater acceptance from dominant groups in the posttest than in the pretest. Acceptance and rejection of group members are not determined as much by race, religion, or ethnic category but by the role that the chooser perceives the chosen to be performing. Females showed a tendency to be more ethnocentric and to establish earlier, more permanent social relationships than males. The greatest positive attitude change of all ethnic groups was that shown toward the Negro males.

Beverly Kruse

ADJUSTMENT OF EDUCABLE MENTALLY RETARDED CHILDREN IN INTEGRATED AND SEGREGATED RESIDENTIAL SUMMER CAMP SETTINGS AND ATTITUDES OF NORMAL CHILDREN AND CAMP STAFF MEMBERS TOWARD EDUCABLE MENTALLY RETARDED CHILDREN

University Microfilms
Order Number: 73-1518

By: Jay Seymour Sexter,
Fordham University
1972

Purpose

The author attempted to determine whether educable mentally retarded children make a better adjustment in a segregated camp for retarded or in a camp where they are integrated with normal children. Also, would normal children segregated and integrated camps have different attitudes toward retarded children? Further, would the attitudes of camp staff members toward retarded children change after an experience working with retarded children and are the attitudes of the normal children and camp staff members toward retarded children different from their attitude toward themselves?

Procedure

The Semantic Differential instrument was administered both before and after the experiences to the children and the staff. The instrument was to determine the attitudes about normal children, retarded children, and themselves. A separate inventory was administered to the retarded children. A camp counselor completed a questionnaire about each retarded camper that dealt with their feelings about themselves, their abilities, and how well they functioned at camp.

Results and Conclusions

The results found retarded children do not make a better adjustment in an integrated camp setting than in a segregated camp setting. The attitude of normal children and camp staff who worked directly with the retarded children underwent a positive change. Those staff members who did not work directly with the retarded did not change and for staff and normal children, their attitude is more negative toward mentally retarded children than for normal children.

FACTORS TO BE CONSIDERED IN DEVELOPING RESOURCES FOR RESIDENT CENTERS FOR OUTDOOR/ENVIRONMENTAL EDUCATION

University Microfilms
Order Number: 75-20,229

By: Andrew L. Sim, Jr.
Columbia University
1975

Purpose

Factors to be considered in selecting an outdoor education center for the middle school age student were studied in this research. Typical outdoor education programs as well as the academic, psychological, and physical growth of the child of 9-13 years were studied.

Procedure

A questionnaire was developed and sent to practitioners in residential outdoor education programs in both U.S. and Canada. A search of the literature, visits to on-going resident centers, and personal experiences also were utilized in data gathering.

Results and Conclusions

A test of factors to be considered in selecting a site was developed but no rank ordering of importance was made. Sims recommends that the center property be contiguous, with a diversity of environments, and large enough for a minimum of one acre per camper. The buildings should reflect native materials as much as possible and have provision for use by the physically handicapped. The dining facility should be of multi-use construction so it can be used for other purposes. Adequate housing for the staff is a must. If students are to participate in the chores of daily living, provision must be made for it in both the buildings and the program. With a diversity of environments, learning stations, both indoor and outdoor, must be provided to enhance the discovery and inquiry methods of learning. Finally, the safety of camp personnel and the participants is of utmost importance so special emergency procedures and emergency drills must be provided.

AN EVALUATION OF VALUE CLARIFICATION TECHNIQUES WITH RESPECT TO ECOLOGICAL ACHIEVEMENT AND ATTITUDES

University Microfilm
Order Number: 75-5438

By: John B. Simmons
University of N. Colo.
1974

Purpose

Simmons attempted to test the effectiveness of value clarification techniques in relation to achievement in ecology and attitudes toward ecology, biology, and science. He asked this question: To what extent does the use of value clarification techniques in a high school biology environmental science unit change student's ecological attitudes, ecological achievement, attitudes toward science and affective behavior?

Procedure

Two hundred and sixty-two first year biology students were randomly divided into two groups. The students were pretested with the following instruments: (1) Syracuse Environmental Awareness Test, (2) Affective Domain Measuring Scale, (3) Schwirian Science Support Scale, and (4) Science, Nature, and Survival of Man Scale. Both groups participated in an experimental ecology unit lasting twenty-six days. Thereafter, the experimental group was taught using a series of value clarifying lessons. The relative effectiveness of the value clarification techniques were assessed statistically using analysis of covarience on pretest and posttest scores.

Results and Conclusions

Comparison of adjusted posttests means indicated that both groups exhibited positive gain scores with respect to attitudes and achievement in ecology. However, the values clarification lessons were no more or less effective than traditional approaches in developing student attitudes toward ecology, biology, and science.

James R. Koinis

A COMPREHENSIVE EVALUATION OF A THERAPEUTIC CAMPING INTERVENTION FOR EMOTIONALLY DISTURBED BOYS

University Microfilms
Order Number: 74-24936

By: Kent C. Skipper
University of Texas, Austin
1974

Purpose

This investigator set out to determine: (1) the effectiveness of a therapeutic camping program as a mental health intervention system, (2) effects of the program on different identified subgroups, (3) the description and analysis of treatment processes, and (4) the campers' perception of the experience. Through the study a format for evaluation of a therapeutic camping program or guidelines for establishing an evaluation program could be developed.

Procedure

Campers were elementary and junior high school students who were referred to the Adventure Trails Program sponsored by the Dallas Salesmanship Club. Four groups were formed and exposed to a twenty-six day camping trip in southwest United States. Groups of eight campers and two counselors plan and conduct the program. Data were gathered through the Coopersmith Self-Esteem Inventory; Behavior Problem Check-list for Teachers; Coping Analysis ScheduleFFor Educational Settings; Florida Climate and Control Systems, adapted; and, Critical Incident Report.

Results and Conclusions

Data revealed that subjects experienced a statistically significant gain in self-esteem. Withdrawn boys profited more than did conduct-problem boys and elementary students generally demonstrated more improvement than junior high students. Students stated the camping experience was highly successful in helping them achieve and behave better in school.

OUTDOOR RECREATIONAL RESOURCE DEVELOPMENT THROUGH VOCATIONAL AGRICULTURE AND THE COOPERATIVE EXTENSION SERVICE

University Microfilms
Order Number: 70-6887

By: Wendell Lee Smith
Ohio State University
1969

Purpose

Smith's study was a general assessment of the opportunities in outdoor recreation in Ohio and the remaining forty-nine states. He was interested in the present status and the development potential of educational programs provided by vocational agriculture and the Cooperative Extension Service.

Procedure

Smith used six different groups of individuals for his study. Group I was a random sample of the general public from metropolitan areas of Ohio. The questionnaire sent to them established present and future demands for outdoor recreation. Group II consisting of private campground owners from Ohio, was used to determine the facilities available and the number of educationally-trained employees needed. Group III, the Vocational Agriculture teachers, and Group IV, the County Extension Agents, provided information about the extent, present and future, of educational instruction in outdoor recreation. Group V, State Supervisors of Vocational Agriculture, and Group VI, Cooperative Extension Service Specialists in Outdoor Recreation, both received questionnaires soliciting information dealing with the nature and extent of vocational agriculture offerings in outdoor recreation, both now and in the future.

All questionnaires were coded and computer analyzed, and frequency counts, percentages and means on designed tables were produced. Spearman rank-order coefficients were obtained, and three *t*-tests and five Chi-square statistical tests were applied.

Results and Conclusions

The general public expressed a need for additional facilities and interest in free instructional courses on the basics of recreational activities. It was also found that campground owners are providing the facilities but additional facilities are needed. The teachers and agents revealed that many were now offering instruction in outdoor recreation but that in five years the need and demand would be far greater. Almost half of the states presently offer instruction in outdoor recreation and in five years many more will do so. Most of the courses offered now and that will be offered in the future will be of a non-occupational type for youths and adults.

Sandra Gunderson

THE DEVELOPMENT AND FIELD TESTING AT THE JUNIOR HIGH SCHOOL LEVEL OF AN ENVIRONMENTAL EDUCATION GUIDEBOOK

University Microfilms
Order Number: 74-28,207

By: Patricia M. Sparks
Temple University
1974

Purpose

The focus of this study is on the philosophy and design of a guidebook on solid waste, and the field testing of the guidebook as a unit of study dealing with solid waste by Junior High School Students.

Procedure

This study involves two separate phases - a developmental phase and a testing phase. The developmental phase included the establishment of the philosophical basis and the design of a student directed guidebook for teachers which culminated in the writing of A Curriculum Activities Guide to Solid Waste and Environmental Studies. The testing phase involved the field testing of the guidebook.

Solid waste was selected as the topic for the guidebook for a number of reasons: (1) solid waste involves everyone of us, (2) the study of solid waste is viewed as multidisciplinary, (3) the study of solid waste involves an examination of the community. By being actively involved in problem solving processes related to solid waste, it was expected that the student would develop capabilities of using resources to find information and use this information in making decisions appropriate to the problem.

For testing, the guidebook was used in two Junior High Schools in New Jersey. For 8 - 12 weeks the guidebook was used exclusively by the teachers. At the conclusion of the unit, opinio were filled out by the teachers and students and tabulated. A teacher-written summary concerning each unit was collected.

Results and Conclusions

It was found that the guidebook is capable of directing the teacher towards a process-oriented teaching approach. Based upon data collected, increased awareness of the problems related to solid waste was realized. The study also indicates that the activities presented in the guidebook encourage creative thinking and decision making when dealing with environmental problems.

Steven Pentek

ANALYSIS OF RECREATION ACTIVITIES IN RESIDENT OUTDOOR SCHOOLS WITH INFERENCES FOR THE OBJECTIVE OF EDUCATION FOR LEISURE

University Microfilms
Order Number: 73-28,376

By: Sheryl Jo Stephan
Indiana University
1973

Purpose

The purpose of the study was to investigate current practices in, and attitudes toward, appropriate recreation activities in resident outdoor schools, and to determine the implications this holds for the objective of educating for leisure in this setting.

Procedure

Twelve resident outdoor education programs were identified as appropriate for use in the study. These programs were found in the four major geographical locations of the U.S. with the West having the most and Southeast the least. Data were gathered from resident staff members by means of a Q-sort questionnaire containing items selected and verified by a jury of seventeen nationally known outdoor educators. The directors of the outdoor school programs supplied background data on the principles of recreation programming in use by their schools.

Results and Conclusions

The largest opinion group, 55% of the outdoor educators, approved most activities of a cognitive nature involving curricular areas other than physical education during recreation time. However use of science, art, and work equipment was not provided for outside of regular classes. The remaining 45% approved most camping or outdoor recreational activities, physical education activities, and cooperative efforts for completion of a task. A variety of interpretations of the terms recreation and education for leisure between and among jury members and resident staff members was noted. Outdoor schools operate as autonomous units with no consensus on objectives. Leadership and supervision provided during the recreation periods seemed to be at odds with the principles of recreation programming.

Beverly Kruse

A PROGRAM OF CONSERVATION EDUCATION: A SOURCEBOOK FOR TEACHING CONSERVATION IN SCIENCE PROGRAMS (WITH SPECIAL REFERENCE TO THE PROBLEMS AND POLICIES IN THE AREA OF RICHMOND, VIRGINIA).

University Microfilms
Order Number: 65-11,711

By: Herman Lee Strader
Columbia University
1965

Purpose

The project was designed to analyze policies of conservation in the Richmond, Virginia,area and to prepare teacher's resource units for conservation education for elementary schools in the area. This need was important in that the Richmond, Virginia,area is suitable for many areas of conservation education.

Procedure

To analyze policies of conservation education in the area, the author examined bulletins and pamphlets and resource materials of various state agencies. Then he made recommendations about revisions and additions that needed to be added to the policies.

From this,curriculum needs were also determined and curriculum written for use by teachers in the schools. The general topics were: Soil Conservation, Water Conservation, Forest Conservation. Mineral Conservation was omitted due to the fact that this topic is not important to the area.

Results and Conclusions

Conservation should be taught actively and in all areas of school. Curriculum material is needed for teachers not qualified in this area. These should include sourcebooks, units and manuals, held Strader.

Teacher education in Conservation should be strengthened as should education of the general public. A definite plan or program should be integrated into school programs using the curriculum guide devised in this study. Finally, evaluation should be made each year of the program and involve all individuals participating in the conservation education program.

Joel Van Der Puy

CHANGES IN SELF-DESCRIPTIONS OF TEACHERS AS A RESULT OF OUTWARD BOUND EXPERIENCE

University Microfilms
Order Number: 75-5457

By: James Merit Stuckey
The American University
Washington, D.C. 1974

Purpose

The purpose of this study was to determine what differential changes occurred in self-descriptions among teachers of different ages and sexes as a result of participation in courses at two different Outdoor Bound centers. Changes in personality and behavior patterns were expected.

Procedure

This was a correlation survey attempting to determine the extent to which certain variables (changes in self-descriptions) are related to others (age, sex, Outward Bound school attended, etc.). The author assumed that Outward Bound experiences stimulate such changes.

Each subject completed the Gough Adjective Checklist prior to participation in the Outward Bound course. These checklists were completed again ten months later. Raw scores were then converted to Standard Scores. The Gough Adjective Checklist is a list of adjectives used in describing personality attributes. Pre-course Standard Scores were then subtracted from the post-course scores to obtain change scores for each participant.

Results and Conclusions

The results were inconclusive. There was a suggestion of some systematic difference in the effect of the Outward Bound courses due to sex and course location. Systematic differences in the effect of Outward Bound according to age was found in one of the sixteen tests made; and women were more negatively correlated on the self-control scale than men.

Stuckey felt the results to be unimpressive and weak and that much more work and research needed to be done.

Joe Van Der Puy

LEADER'S MANUAL FOR OPERATIONS AND INNOVATIONS IN OUTDOOR EDUCATION CAMPS AND ENVIRONMENTAL CENTERS

University Microfilm
Order Number: 75-5,445

By: Gordon M. Thies
University of N. Colorado
1974

Purpose

Thies outlined four objectives for this study. The first was to determine efficient procedures for operating a residency outdoor environmental education program. The second was to determine subject matter, instructional materials and teaching techniques for interdisciplinary curriculum. The third was to establish personnel needs and procedures for environmental programs. The fourth was to ascertain the administrative and supervisory roles best suited to the objectives and programs of outdoor-environmental education facilities.

Procedure

Thies did not conduct or include a statistical study in support of this work. He held that practical solutions learned through study, participation and interviews are adequately infused with insights about applying theory to practice. The author states that although he has not scientifically analyzed the data, the ideas, innovations and practices he has detailed have been successfully administered by professionals in the field of outdoor environmental education.

Thies based his recommendations on a literature search, interviews with educational experts in fields related to outdoor-environmental education, extensive participation in eight camps, and through visitations at over sixty-five environmental education facilities in sixteen states.

Results and Conclusions

The findings of this study offer twelve recommendations and conclusions relating to the four stated objectives. They are discussed at length in the six chapters of Thies' book and supply alternative solutions to problems in virtually all facets of outdoor environmental education.

James R. Koinis

SELECTED DIMENSIONS OF SPACE AS CRITERIA FOR THE SELECTION OF PLAYGROUND EQUIPMENT FOR CHILDREN IN AN OUTDOOR LEARNING ENVIRONMENT

University Microfilms
Order Number: 75-3208

By: Donna J. Thompson
Ohio State University
1974

Purpose

Thompson wished to explore how kindergarten boys moved on three selected pieces of playground equipment. She wanted to analyze their movement in terms of space (dimensions of the level, range, and direction), along with how the body parts were used for the movement on the equipment and for supporting the body.

Procedure

After surveying much literature of various types on playground structures, their use, purpose, and authorities' opinions of the structures, Thompson selected three for her study. They were the Wooden Pilings, the Muscle Man Bars, and a Geodesic Dome (Eagle's Perch). She selected these for their non-moving parts, their single purpose in design, their variations in size, spatial design and texture, and for their construction for safety for ground landings.

Thompson selected twelve kindergarten boys from Worthington Hills Elementary School. She selected boys on the basis that they are more active physically than girls. The boys were allowed to play for timed intervals during three days in April. She then used four slide cameras with a Motor Drive attachment to record their play. Thompson then used a "three-factor repeated measures analysis of variance" to compute her results.

Results and Conclusions

Thompson found that there was a degree of difference of movement on the three structures. The Pilings had the greatest amount of movement, followed secondly by the Muscle Man Bars, and lastly, the Geodesic Dome. The dome and bars did create other types of spatial movement not created on the pilings. It was, therefore, concluded that selection of one of the structures should be determined by personal preference of teachers and administrators as to which types of movements were preferred.

Jeanne Kuhn

EFFECTS OF AN OUTDOOR EDUCATIONAL EXPERIENCE ON CHILDREN'S LOCUS OF CONTROL AND PERFORMANCE ON PHYSICAL TASKS

University Microfilms
Order Number: 74-19,732

By: Gordon LeRoy Ulrey
Boston College
1974

Purpose

Ulrey had two purposes to his study. The first purpose was to study a child's relationship of his locus of controls and his development of the skills of risk-taking, obstacles-reaction, individual/group problem-solving, and physical competencies. The second purpose was to study the effect of an outdoor educational experience on changing the locus of control beliefs of a child.

Procedure

Ulrey's study was conducted with predominantly white, middle-class, third and fourth grade students at a summer camp program in Westwood, Massachusetts. He worked with 140 students randomly assigned to a control group of 57 students and an experimental group of 83 students. Both age groups were pre and posttested separately with an observational test by Ulrey and written tests obtained from other sources. The written tests were modifications of Nowicki and Strickland Locus of Control Scales (measuring general locus of control beliefs), and the Intellectual Achievement Responsibility Questionnaire (measuring academic locus of control beliefs). The experimental group received 9 one-hour sessions of outdoor education treatment activities that had been designed to improve children's physical competencies and problem solving skills, with four replications, while the control group received no special sessions.

Results and Conclusions

Ulrey's scores showed that there was some modifications on the experimental group's locus of controls orientations on the written tests. The behavioral scores of the experimental group did not significantly improve, however.

Ulrey's major conclusion was that outdoor educational experiences do change children's locus of control orientation in the four behavioral skills areas previously mentioned. The confidence acquired from physically performing tasks may internally reinforce these changes.

Jeanne Kuhn

A SURVEY OF PREPRIMARY AND PRIMARY OUTDOOR LEARNING CENTERS/PLAYGROUNDS IN TEXAS PUBLIC SCHOOLS

University Microfilms
Order Number: 77-11,602

By: Elizabeth Ann Vernonn
University of Texas, Austin
1976

Purpose

Vernon set out to collect information about the primary and preprimary level outdoor learning centers (playgrounds) of Texas schools. She wanted to use this information as the basis for making recommendations about the development and use of such facilities.

Procedure

Steps in this study were:

1, Collection of information (through a survey) about (a) the equipment and facilities currently available, (b) the curriculum activities for scheduled outdoor learning activities, (c) the perceptions of school personnel on the place and role of outdoor learning activities, and (d) the deaths and injuries attributed to the use of equipment on outdoor learning centers/playgrounds for the 1974-75 school year.

2. Analysis of this data and formulation of recommendations for planning, development and use of such outdoor learning centers.

Results and Conclusions

Vernon found the preprimary and primary outdoor learning centers/playgrounds in Texas Public Schools to be inadequate. They were not sufficient to meet the intellectual, social and motor development needs of young children.

Most of Vernon's respondents would delegate the outdoor learning experiences to physical education teachers and there seemed to be no coordination between indoor programs and the outdoor playground programs.

Much of the equipment available to young children was really designed for older children, hence, hazardous or unusable. In most places no provision was made for the dramatic and construction play of children. And, most teachers and administrators misunderstood or failed to recognize the nature and function of play to children.

Vernon held that this should be an important concern and that priority should be placed on the development of outdoor learning centers/playgrounds and appropriate programs to use them.

A GUIDE ON SCHOOL CAMPING FOR THE ADMINISTRATOR

By: Mitchell L. Voydat
Columbia University
1954

Purpose

The development of a document that would justify school camping as a sound educational activity was a major objective of this study. Also, the determination of camping problems and administrative patterns of handling the educational and operational aspects of programs was emphasized.

Procedure

A historic literature review was made to trace school camping and establish location of programs. With the assistance of national organizations, a list of program directors and coordinators was developed for surveying with an opinionnaire. Also, written literature from school camping programs dealing with concerns of program and operation were requested with the opinionnaire.

Results and Conclusions

A lengthy treatment of gathered data was made to enable school officials to utilize the study as a manual for operating a camp. Nationwide response to the opinionnaire suggested that school camping did meet the aims and objectives of education and that it assisted students to develop more civic responsibility,human responsibility, and the self-realization of their own individual capacity. Major problems found were funding, staff personnel, facilities, scheduling and transportation.

The study was a good historical account of camping and lends itself to replication to upgrade it to a more current data.

ENVIRONMENTAL EDUCATION, KINDERGARTEN THROUGH GRADE TWELVE: A RESOURCE GUIDE FOR TEACHERS

University Microfilms
Order Number: 74-7574

By: Wesley Max Walser
Duke University
1973

Purpose

There were two major areas to this study. The first was to discuss environmental education and existing programs. The second was to develop a resource guide for K-12 teachers dealing with the identification, development, and explanation of environmental study sites.

Procedure

Part I of the study consisted of examining the development of environmental education, beginning in the nineteenth century. Walser also used a survey of the State Board of Education of North Carolina to examine its environmental education programs. Part II of Walser's study is a self-developed resource guide with suggestions for environmental education. This was based on his research in part one.

Results and Conclusions:

Walser found that there is general agreement that environmental education should not be tied to a single discipline. In North Carolina few schools even had materials available for proper environmental education. Also, very few North Carolina colleges and universities had teacher training programs involving environmental education.

Walser developed a resource guide with lesson plans for conducting environmental education.

James Burns

THE OPINIONS OF PARENTS REGARDING THE CHANGE IN ATTITUDES, CONCEPTS, AND PERSONAL ADJUSTMENT OF THEIR SONS THROUGH PERSONAL COUNSELING AT SUMMER CAMP

University Microfilms
Order Number: 72-7180

By: Mark Weatherly
University of Virginia
1971

Purpose

Information expected from the study of maladjusted campers included: (1) the developmental process in young campers; (2) areas of camp life affecting behavior patterns, and (3) transferability to settings other than the specific camp being studied.

Procedure

A personal interview with parents, counselors, and teachers along with a questionnaire formed the basis for the data gathering in this study. Former camper parents were asked to respond to a questionnaire that dealt with changes in attitude or self-concept of their sons.

Results and Conclusions

Positive influence of the camp experiences were reflected in the areas of underdevelopment in school, emotional conflicts, and general development. Most parents believed the personal counseling had a positive effect upon their sons. The area of child development that was least affected by the camp experience was family conflicts.

THE DEVELOPMENT AND EVALUATION OF A SELF-INSTRUCTIONAL ENVIRONMENTAL EDUCATION PROGRAM FOR ELEMENTARY TEACHERS

University Microfilm
Order Number: 75-15,717

By: Iris Rosfeld Weiss
University of North Carolina
1974

Purpose

The purpose of this study is to develop use and evaluate a means of (1) improving elementary school teachers knowledge in science,and (2) developing favorable, positive attitudes toward the teaching of science.

Procedure

Thirty-four teachers were grouped by schools, then according to grade level taught, and then randomly assigned to experimental and control groups.

All were pretested with a test on Environmental Science and they were later tested with this same test and with a test of Attitudes toward Teaching Science. The Environmental Knowledge and Opinion Survey was used with their students as a students posttest, three months after the science module started.

The approach used in development of the science module was very similar to the one Tyler used in his Basic Principles of Curriculum and Instruction (1950). The module was revised until all content was made valid then used by the thirty-four teachers. They in turn evaluated its impact in meeting educational objectives and then revised it as needed.

Results and Conclusions

Teachers who used the environmental education package were found to be more knowledgeable about the environment than the control group.

The environmental education package was also effective in improving the teachers attitudes toward teaching science. As a result of the use of the package the Science teachers felt better prepared in teaching science.

The posttest used by students however, indicated that neither students knowledge of science or their attitude towards the environment improved.

Walter Johnson

THE STAFFING OF PUBLIC ELEMENTARY SCHOOL CAMPS

By: Esther Wenrich
Teachers College, Columbia
1955

Purpose

To encourage and aid school districts and their personnel to prepare, with other progressive educators, for a direct learning experience as acquired in school camping.

Procedure

One hundred forty-one questionnaires were distributed to administrators, leaders and other persons interested in currently existing school camps. Pertinent literature was studied. Conferences and interviews with people running school camps were held. Documentary material was read and camps visited. All the statistics were tallied and results presented.

Results and Conclusions

1. Existing camps have organized their staff in three ways: (a) permanent instructional staff, (b) a nucleus staff, (c) enthusiastic teachers.

2. It is imperative that classroom teachers attend camp with their pupils.

3. Successful teachers are those genuinely interested in the "whole child."

4. Good personality, willingness to be a co-worker and co-learner are needed.

5. Successful classroom teachers are not necessarily successful camp leaders.

6. Teachers agree they need camping experiences prior to encampment for reasons of confidence and security.

7. This experience is most beneficial at the school camp site.

8. There is a need for sympathetic guidance to prepare unconvinced and uninformed teachers for this specialized activity.

9. There is a need for a well organized institute to train leaders for outdoor living.
10. There is a need for new periodicals concerned with public school camping.
11. Well defined policy must be cooperatively established for all adult personnel.
12. A job analysis is a reasonable expectation for all new recruits.

Carol Willenbreck

A COMPARISON OF TWO METHODS OF TEACHING ENVIRONMENTAL EDUCATION

University Microfilms
Order Number: 75-17,916

By: Dale Carlton Wescott
University of Maryland
1974

Purpose

Wescott compared two methods of teaching environmental education: (1) using an interdisciplinary approach, and (2) using a discipline centered approach. He compared cognitive achievement and attitudes toward environmental issues when taught by the two methods.

Procedure

The sample consisted of 212 seventh grade pupils randomly assigned to a treatment group and randomly assigned to a pre-test or no pre-test group. One half of the subjects in each team were pre-tested prior to instruction using an attitude inventory. The subjects were all post-tested on their knowledge of environmental programs and their attitudes toward environmental problems.

Results and Conclusions

Westcott found no significant difference between the two methods of teaching as applied to cognitive achievement.

Subjects who were taught by the interdisciplinary approach who were not pre-tested showed no greater gains than those taught using the disciplinary-centered approach. However, subjects taught by the interdisciplinary approach who were pre-tested made significantly more positive gains in attitude than those who were not pre-tested.

Westcott raised a question about the impact of pre-testing and the need to determine its effect upon subsequent learning.

OUTDOOR ACTIVITY GROUP EXPERIENCE AND GROUP COUNSELING WITH INSTITUTIONALIZED CHILDREN AND ADOLESCENTS

University Microfilms
Order Number 75-7072

By: Stephen Clark Westmoreland,
North Texas State University
1974

Purpose

Westmoreland wished to compare the impact of group counseling with that of outdoor group experience upon institutionalized adolescents with respect to social and personal adjustment, behavior, self-esteem, and sociometric' choosing.

Procedure

Westmoreland's study took place at the East Texas Guidance and Achievement Center's Stanton Campus, Tyler, Texas, in 1974. The 40 subjects, were between the age of twelve and sixteen and were described as "neglected" children. They were divided into two groups. One group received group counseling sessions on a format of fifteen 90-minute periods over a five-week span, while the other group was treated with five weekly meetings lasting approximately seven hours of outdoor group experiences at a local forest preserve. At the beginning of the project, there was a control period. This took place before the students were involved in either the counseling or the outdoor programs. During this period, the California Test of Personality, and the Coopersmith Self-Esteem Inventory as well as Behavior Rating Forms were given. These were also used as posttest measurements to analyze the differences before and after the counseling and outdoor programs.

Results and Conclusions

The data from the study did not indicate that either group gained more self-esteem than the other. The self-esteem of individuals before the group counseling and outdoor experiences also didn't seem to be significantly higher. There was no measurable difference between personal and social adjustment before and after the study. Sociometric choosing did not differ significantly from measures taken following group counseling and following a control period.

Group counseling subjects received a larger number of behavior points than those tested following a control period. Significant change following group counseling and following outdoor group experience as measured by accrual of points for behavior suggests that both approaches are effective.

Scott Rigsbee

THE EXTENT AND NATURE OF AFFECTIVE AND COGNITIVE CHANGES IN TEACHERS AND STUDENTS AS THE RESUlt OF PARTICIPATION IN AN ENVIRONMENTAL EDUCATION PROGRAM

University Microfilms
Order Number: 76-3874

By: Joseph L. Wileman
Virginia Polytechnic
Institute & State University
1975

Purpose

The purpose of this study was to partially evaluate a National Science Foundation project in Prince William County, Virginia. Wileman wanted to investigate the effect of the project on teachers' and their students' attitudes toward and knowledge of the environment.

Procedure

1. Wileman selected teachers and students from 28 elementary and 10 middle schools in Prince William County. Treatment was applied to the teachers. There was no direct contact by the project with the students. The project consisted of material and method type seminars during the school year 1974-75.

2. The first group (T_1) consisted of teachers enrolled in the project. The students of these teachers composed group S_1.

3. The second treatment group (T_2) was composed of teachers who did not participate in the project but who taught at the same school as T_1. The students of these teachers made up group S_2.

4. Finally, the control teachers (T_3) had no contact with the project or groups T_1 and T_2. Group S_3 was composed of their students.

5. All six groups were given a pre and post test of environmental knowledge and attitudes. Wileman wanted to determine if the materials and methods the teachers obtained from the project were carried over to their students and other teachers they were associated with.

Results and Conclusions

1. Teacher groups -
   a. No significant differences in knowledge scores were found between the pre and post tests for all groups.
   b. Group T_1 increased their attitude scores between the pre and post tests while no significant differences were found with T_2 and T_3.
2. Student groups
   a. No significant differences in knowledge scores were found between the pre and post tests for all groups.
   b. Group S_1 increased their attitude scores between the pre and post tests while no significant differences were found with S_2 and S_3.
3. Wileman concluded that the attitudes of the teachers enrolled in the project were transferred to their students through the methods and materials obtained from the project.

Gail Abrams

JULIAN WARNER SMITH: HIS LIFE, PROFESSIONAL CAREER AND CONTRIBUTIONS TO OUTDOOR EDUCATION

University Microfilms
Order Number: 77-9638

By: Lloyd David Williams
East Texas State University
1976

Purpose

Williams wanted to study the life of Julian W. Smith to learn what impact he had on outdoor education, and to determine what contributions he made.

Procedure

A historical approach was used in this research in which data were collected from Julian Smith, his relatives, personal friends, professional colleagues, former students, etc. Williams reviewed the subjects personal and private files, a variety of documents and records, and many published journal articles, books, and pamphlets.

Results and Conclusions

Williams found Julian Smith to be a major pioneer in outdoor education. He devoted most of his professional career to outdoor education and made many important contributions. He was a giant in the field and worthy of being called the "Father of Outdoor Education".

Williams used these as divisions in Smith's life for reporting purposes (a) The Rural Life, 1901-1920; (b) The Beginnings of a Teacher, 1920-1940; (c) Years of Growth, 1940-1955; (d) The Outdoor Education Project, 1955-1975. He found that Smith had very deep rural roots having been born and raised on a small farm near Woodland, Michigan, and having later returned to this rural area to teach.

Smith developed an association with Hugh B. Masters of the W.K. Kellogg Foundation whereby students at Smith's school participated in a school camping program at Clear Lake Camp. He later went into a position as director of interscholastic athletics for the state of Michigan and then became Assistant Supervisor of the Camping and Outdoor Education Project of the Michigan Department of Public Instruction.

In 1953, Smith became Associate Professor of Education at Michigan State College. When AHPER established the Outdoor Education Project in 1955, Smith became its Director. Between 1955 and 1975, Smith was involved in nearly 400 state and regional workshops, was a member of 25 state and national committees and had written hundreds of articles and chapters of books. He was the recipient of a long list of awards and honors.

THE EFFECTS OF THE NATIONAL ENVIRONMENTAL EDUCATION DEVELOPMENT (NEED) PROGRAM ON SELF-CONCEPT AND CHANGE OF ENVIRONMENTAL ATTITUDES OF SELECTED ELEMENTARY SCHOOL STUDENTS

University Microfilms
Order Number: 75-29909

By: Robert Aura Williams
Georgia State University
1975

Purpose

This study was undertaken to learn the effectiveness of the National Environmental Education Development (NEED) program in changing or influencing environmental attitudes and self-concept of children. Williams sought answers to questions like this: "Is there a relationship between age (sex - grade level - ethnic origin, etc.) and change in attitude scores, self-concept scores and VFS (the frequency with which an individual reacts positively to a given environmental simulation)?" He also wished to develop a usable test or instrument to measure environmental attitudes that was non-verbal in orientation. He called this the Environmental Preference Test (EPT).

Procedure

Williams used an experimental design involving four groups. Two control groups were selected from a camping situation resembling Tremont and two experimental groups were obtained from students involved in the Tremont program which focused on the NEED approach.

A battery of tests was used, one of which was Williams' non-verbal attitude rating instrument which consisted of 100 slides relating to the physical environment. Another of the tests provided a contrived situation in which a student was forced to demonstrate an environmental behavior. One control group and one experimental group completed the test battery on a pre and post basis. The other control and experimental groups completed the tests on a post basis only. The independent variable was participation in the Tremont NEED experience. Statistical analyses were made.

Results and Conclusions

Williams reported that significant differences were obtained in a variety of cases. The most significant change was found in environmental attitudes as expressed by the EPT where a mean gain score was significant at the .01 level over that of the control groups. Littering habits as established by the VFS were found to decrease as a result of the Tremont experience. Self-concept was only slightly improved. Williams concluded that the Tremont NEED Program is effective in changing environmental attitudes and certain self-concepts of children.

THE EFFECT OF A TELEVISION-ORIENTED INSERVICE PROGRAM ON THE ELEMENTARY TEACHER'S ATTITUDE TOWARD SOME COMPONENTS OF ENVIRONMENTAL EDUCATION

University Microfilms
Order Number: 72-12661

By: James Henry Wright
University of Denver
1971

Purpose

The effect of a television-oriented inservice program on environmental education was studied in this investigation. The extent and change of teacher attitudes toward air and water pollution, ecology in general, and human population density was investigated.

Procedure

The Denver public schools television facility developed a series of short programs for elementary teachers on topics such as population, pollution, and politics. Teachers were tested for environmental attitudes prior to the series of television programs and compared to an equal number of teachers who had not participated in the environmental education program.

Results and Conclusions

A semantic differential scale was developed and it indicated that teachers who participated in the television program showed significant attitude changes toward the environment.

Most significant changes came in their attitudes toward a quality environment and a need for understanding the interrelationships of the biotic community.

A PRINCIPLE AND CONCEPT PERSPECTIVE OF CONSERVATION

University Microfilms
Order Number: 61-1817

By: Paul Abt Yambert
University of Michigan
1961

Purpose

Yambert wished to develop a basic core or cadre of descriptive and predictive generalizations pertaining to the field of conservation. He wanted to develop a framework that could be used in both education and resource management.

Procedure

To form these generalizations, Yambert carefully surveyed and analyzed recent studies in which conservation education generalizations were dealt with. He sifted and sorted through the statements set forth in these studies and other documents and formulated others to fill the gaps. He arrived at three major groups of principles. A sampling of the generalizations, some of which involve precise definitions, presented in the study is set forth below.

1. Potential and pristine resources and resistances may be converted into resources and resistances in being, by the action of culture upon the environment.

2. Cultural advance tends to be restricted when there is excess disparity in the degree of advance among the component parts of the culture.

3. As the total quantity of a stock resource which has been consumed or naturally deteriorated increases the absolute grade of the associated potential resource tends to decrease.

4. Reduction in the flow of some resources and resistances tends to become irreversible due to societal, technological, and/or biological factors.

Results and Conclusions

Yambert concluded that man must become more aware of the short and long-range ramifications of his actions and inactions. Man can program technological advance and modify societal changes in a way as to realize the objectives of conservation. It is this ability of man to manipulate his environment for good or bad that implies the need for managing toward these objectives of conservation. Yambert hoped that his principles and concepts would provide a basis for understanding and communicating concerning conservation on the part of the professional and the layman.

Ken Wenzel

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This research bibliography has developed over several years and through a series of planned steps. It contains 439 studies and bibliographic citations for 419 additional projects covering a period of almost 100 yrs.—1888 to 1975. This volume represents the most comprehensive effort yet made to present studies and analyses in these areas of concern. In addition to review and analyses of trends and major findings reported for each of the annotated studies, unanswered questions that need to be proved in further studies, projects and programs are delineated. Various other problems, issues, concerns, and needs having implications for research, demonstration training, and service in physical education, recreation and psychomotor function of mentally retarded persons are also presented. Research findings are translated into practical instructional hints, teaching hints, teaching techniques, and related ideas that can be used and put into action by practitioners. All entries are indexed and cross-indexed in one of 5 indices. 1975.

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